MEDICAL COUNCIL

1910 - 1915 (007)

ONTARIO MEDICAL COUNCIL.	BRITISH MEDICAL COUNCIL.

How Constituted:-

ONTARIO MEDICAL COUNCIL.	BRITISH MEDICAL COUNCIL.
1 Representative from 18 Territories, elected by the Medical Practitioners of Ontario.	1 Representative from 24 Teaching (University) formerly Licensing Bodies.
1 Representative from six Universities.	3 Representatives elected by the Medical Practitioners registered in England.
5 Representatives elected by the Homoepathic Practitioners,	1 Representative elected by the Medical Practitioners registered in Scotland.
First Ontario Medical Act ~~1874~~ 1869.	1 Representative elected by the Medical Practitioners registered in Ireland.
Amended 1887.	British Medical Act 1886. and Amendments.

RESULT:-

ONTARIO MEDICAL COUNCIL.	BRITISH MEDICAL COUNCIL.
23 Representatives of Practitioners.	5 Representatives from England, Ireland and Scotland Medical Practitioners.
6 Collegiate Representatives.	24 Representatives of Universities.

Requirements for Registration.

ONTARIO MEDICAL COUNCIL.	BRITISH MEDICAL COUNCIL.
Matriculation.	Matriculation. Standard fixed by General Medical Council.
Five Years of Study. (Four winter Sessions of eight months each and a clinical year spent either in a Hospital or with a Practitioner)	Must register with Gemeral Council within 15 days of commencing study and spend five sessions of eight months each at an Institution where the standard is assuredly maintained under the inspection of the General Medical Council.
Act provides power and authority to fix and determine curriculum of studies. Statement is made in their Annual announcement of the courses to be followed.	The General Medical Council fixes the standard of proficiency and it is their duty to secure the maintenance of such standard in all teaching Institutions mentioned.
	For that purpose inspectors are appointed in such number as the Council determines and these shall attend as the General Council may direct, at all or any of the qualifying examinations held by the bodies aforesaid, viz:- the 24 Universities electing the members to the General Council,

ONTARIO MEDICAL COUNCIL.	BRITISH MEDICAL COUNCIL.
Conducts examinations at the end of a student's Course in Medicine, Surgery and Midwifery.	Appoints inspectors to attend the Examinations conducted by the Universities. The inspector takes no part in the examination, but if in his opinion the examinations conducted are not up to the standard, he reports this to the General Council and the Medical Council may then report the matter to the Privy Council, which shall authorize the Council to refuse to recognize such examinations as qualifying examinations. The University in question must bring its standard up to the requirements and it is then restored to its status.

Professor A. B. Macallum dictated the following note:-

The late Dr. Henry Hoover Wright was the principal leader in the campaign throughout the Province in the early seventies which led to the founding of the Ontario Medical Council and he again and again stated to me personally that the Medical Council would never have been founded had it not been agreed to concede to the Universities and Schools engaged in giving instruction and diplomas in Medicine or degrees in Medicine in this Province, representation in the Medical Council that was to be created, these Universities and Schools on their part engaging to surrender their powers of Licensing in order that the Council should come into existence.

This was a contract which was crystallized in the Act of 1874, but that contract has been largely forgotten or ignored by the territorial representatives in the Council of the last thirty years.

The British Medical Council came into existence in practically the same way, the teaching and licensing bodies which have representatives in it, however, have not surrendered their power to license their graduates in Medicine and have only submitted to having such examinations subject to inspection by the British Medical Council which controls the curriculum leading to the qualification of such a license.

The British Medical Council after receiving a report from one of its inspectors appointed to attend the examinations of any licensing body, showing that the standard of proficiency in any of such examinations was not high enough, may report to the Privy Council, which shall authorize the Council to refuse to recognize such examinations as qualifying examinations for the purpose of registration.

THE COMMITTEE to whom was referred the subject of MEDICAL EDUCATION in ONTARIO and the relations between the UNIVERSITY and the ONTARIO MEDICAL COUNCIL, BEG TO REPORT:

1. In the year 1910, the Government of Ontario was asked, on behalf of the University of Toronto to have the whole subject of Medical Education in Ontario officially investigated and reported upon, so that a well-considered measure might be prepared and submitted to the Legislature, but action upon this matter was not taken by the Government until Mr. Justice Hodgins was appointed a short time ago as sole Commissioner to conduct the investigation and make the report. He has had several Sittings, at which various interests were represented before him, including the University of Toronto. The views of the University were partially explained to the Commissioner by the President. Appended hereto is a copy of the President's address on that occasion. X

2. The President confined his remarks at that time to the questions relating to the educational preparation of those who intended to seek a license or right to

practise Medicine or other means of healing in Ontario, and deferred presenting the position of the University in relation to its degrees in Medicine and its position with reference to the jurisdiction and powers now vested in the Ontario Medical Council.

3. The President communicated with Queen's University and the Western University suggesting that a conference should be held before the views of the University of Toronto upon the matters referred to were formulated and presented to the Commissioner, but the suggestion was not accepted and no conference has been held.

Your Committee thinks that the position of this University should now be clearly defined and that full information respecting it should be here set out.

4. The Ontario Medical Act, being chapter 161 of the Revised Statutes of Ontario 1914, now governs the College of Physicians and Surgeons of Ontario and the Medical Council. The Act incorporates the medical profession of Ontario under the name of "The College of Physicians and Surgeons of Ontario", and creates a governing body therefor called "the Council", consisting of representatives chosen by certain bodies designated in the Act.

5. Authority is given to the Council to appoint Examiners for the admission of students to the matriculation or preliminary examination, and to make by-laws and regulations for determining the admission and enrolment of students; and power is given to the Council "to fix and "determine from time to time a curriculum of studies to "be pursued by the students, and such curriculum of studies "shall be observed and taught by all bodies referred to in "Section 4 of this Act". This includes the University of Toronto.

6. The Council is required to appoint yearly a "Board of Examiners" to examine candidates for registration "in accordance with the by-laws, rules and regulations of "the Council"; and no persons but students complying with the regulations of the Council and the provisions of the Statute (and certain others specially provided for who need not be referred to here) are entitled to be registered and to be licensed to practise medicine in Ontario. Penalties are imposed for practising without such license. Special provisions are made respecting the study of Homeopathy, which need not be detailed here.

7. In the official "Announcement of the College of Physicians and Surgeons of Ontario" it is stated that the College "is not an institution for the teaching of "Medicine", but that it is "empowered and directed to "enact by-laws for the regulation of all matters connected "with medical education, for the admission and enrolment "of students of medicine, for determining from time to "time the curriculum of the studies to be pursued by "them and to appoint a Board of Examiners before whom "all must pass a satisfactory examination before they "can be enrolled as members of the College and thus be "legally qualified to practise their profession in the "Province of Ontario".

8. By this "Announcement" certain regulations are promulgated. These regulations set out the courses of study, the lengths of the courses in various subjects named. and the numbers of lectures or demonstrations required to be attended, and it is stated that every student must attend such courses "in a University, College or School "of Medicine approved of by the Council". The requirements for examinations are provided for, and the branches embraced in examinations are set out.

9. Although the "College of Physicians and Surgeons of Ontario" is not a teaching body, yet its Council fixes and determines the curriculum of studies to be pursued by every student who desires to acquire the right to practise medicine in Ontario, and the University of Toronto is required by the Statute to observe and teach that curriculum.

The Medical Faculty of the University is made use of by the regulations of the Medical Council for the teaching of students without any contribution towards its cost, yet its students and graduates, notwithstanding their long course in the University, and notwithstanding the proofs of qualification they may have given by their examinations and by their diplomas, are not recognized as possessing any such qualifications, but they must follow the same course, for the same length of time, and submit to examinations as if they had not had the advantages referred to.

10. The duplication of examinations not only entails a hardship upon the students of the Medical Faculty of the University of Toronto, but it also entails upon them unnecessary expense and labor, and shortens the time which should be spent by them in receiving instruction in the

University course. No outside body should have the right to fix any part of the curriculum of studies in any Faculty of the University.

11. The conditions in the Province when the Ontario Medical Council was established, and the reasons for vesting in it the powers it possesses should not be lost sight of. Although there were Acts prior to 1865 relating to the granting of licenses to practise "physic, surgery and midwifery", yet it was not until 1865 that a general Medical Council was established. The preamble to chapter 34 of the Statutes of Canada for that year is as follows:

> "Whereas it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners THEREFORE" etc.

When this Act was passed there were in existence Proprietary Schools of Medicine which carried on the whole work of medical education, in which there was a tendency to lower the standards in the hope of gaining students and making profits, and to counteract this tendency some authority such as a Medical Council was essential in the public interest.

12. The practice of any kind of medicine, surgery, midwifery, or other branch of medicine or the healing art,

is in itself a lawful occupation which any one without special permission by legislative or other authority would have a natural right to pursue. In this respect the practice of medicine, etc., does not differ from the practice of law, or other specialty, and so far as the doing of the things themselves is concerned, it would not be necessary for the State to interfere, but in the course of time, and because of the increase of population, it was found necessary for the State to interfere - not to prohibit the doing of the acts, lawful in themselves, but to regulate the mode of their doing, and the qualifications of those doing them, so as to prevent harm to the public which would ensue by things requiring knowledge and skill being done by persons without the necessary knowledge and skill, and to prevent frauds and impositions upon a confiding and innocent public, which could readily be practised by unscrupulous persons: hence the establishment of the Medical Council, the Law Society, and other bodies constituted for the protection of the public.

13. The true reason for the creation of these bodies is frequently lost sight of by the bodies themselves, and as time goes on the tendency is for those who have received

special powers and privileges solely in the public interest to regard them as having been bestowed for their own interests, and they are inclined to act as if they had certain vested rights which should not be interfered with, though such interference might be called for in the public interests.

14. The conditions in the Province with respect to medical education which called for the creation of the Medical Council, and the vesting in it of powers to determine the qualifications of those seeking to practise medicine have radically changed. Now there is the great Medical Faculty of the University of Toronto, part of a State institution having only the interests of education at heart, and not influenced by any considerations of private gain and fully equipped to impart medical education and determine upon the qualifications of candidates for its degrees.

15. Your Committee is of opinion that the position in which our great Provincial University is placed by the existing legislation upon the subject of medical education is harmful and humiliating and against public interests, and Your Committee earnestly contends that the degree in

Medicine granted by the University should entitle the holder to registration and to license to practice, without further study or examination, and in support of this contention Your Committee must refer to the exceptional position in the Province held by this University. In doing so Your Committee wish it to be understood that no criticism of any other University is made or intended.

X 16. Appended hereto is a memorandum showing the equipment of the University for the teaching of Medicine, including the all important subject of Chemistry, and shewing the Hospital facilities for clinical instruction and surgery, and shewing

17. The University of Toronto has under Provincial statutory authority made expenditures in connection with the Toronto General Hospital exceeding $ 300,000 and has in addition issued its debentures for the benefit of the Hospital to the amount of $ 300,000 . The agreement with the Hospital entitles the University to extensive facilities for clinical and surgical instruction. Arrangements also exist with St. Michael's Hospital, The Hospital for Sick Children, and The Western Hospital, and there can be no doubt that these facilities possessed by this University are unsurpassed in Canada.

18. The expenditure made by the University of Toronto in connection with the teaching of Medicine and kindred subjects necessary for qualification of Medical practitioners is very large and far exceeds the amount of all fees derived from students in Medicine. Appended hereto is a memorandum as to this expenditure.

19 In Great Britain, a degree in Medicine of any one of (34?) Universities there is recognized as entitling the holder to registration and to a license to practice.

The plan in force in Great Britain respecting the admission to practice and the rights conferred by University degrees is the following

20. In the Province of Quebec, a degree in Medicine granted by McGill University or by Laval University entitles the holder to registration and to a license to practice.

is this right?

21. In the Province of

New Brunswick
? Dalhousie
? other Provinces

22. The following resolution was passed by the Council of the Faculty of Medicine of the University of Toronto, viz:

> "THAT in the opinion of the Council of the Faculty of Medicine of the University of Toronto the degree in Medicine of the University of Toronto should carry with it, without further examination or tests, the license to practice in the Province of Ontario".

And at a meeting of the Senate, held on June 8th, 1910, the following resolution relating thereto was passed, viz:

> "THAT the Senate do approve of the resolution of the Faculty of Medicine and direct the Registrar to forward it with this resolution to the Board of Governors, coupled with a request to take such action as will best secure the object aimed at".

23. It is not out of place here to repeat what is said in the report on "Medical Education in the United States and Canada" issued by "The Carnegie Foundation for the Advancement of Teaching", -

> "Of schools of this type (i.e., those that

"by careful selection of students and extraordinary pains in teaching make the very most of the situation) two Canadian institutions, McGill and Toronto, deserve special attention. At Toronto the teaching is wholly in charge of full time instructors, for whose original work splendid provision has been made in laboratories of ideal construction and admirable equipment. In both institutions the shortcomings of the student body, instead of excusing perfunctory work, have rather been regarded as an obstacle to be overcome, a condition to be met". (pp.78-79).

24. Referring to the expenditure made by the University of Toronto in connection with the teaching of Medicine and kindred subjects, it is important to refer to the expenditure of the Ontario Medical Council in connection with examinations and to some of the sources of its income.

x Appended hereto is a memorandum based on official reports which shews this income and expenditures for certain years.

In so far as these fees collected from students relate to examinations of students holding degrees in Medicine from the University of Toronto, Your Committee deem them an unnecessary burden upon the students.

YOUR COMMITTEE recommends that it be authorized to present to the Commissioner, who is now investigating the subject, and to support a statement in terms of this Report, as representing the views and position of the Board of Governors upon the important matters discussed, and that the Commissioner be urged to recommend in his report to the Government the necessary legislation to remedy the evils complained of and to give to a holder of the degree in Medicine granted by the University of Toronto the right to registration and license to practice without further study or examination.

THE RELATIONS OF THE MEDICAL COUNCIL OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

The University is of the opinion that the Medical Council of the College of physicians and Surgeons of the Province of Ontario should be reorganised upon the lines of the British Medical Council, with the same powers.

The Council of the College of Physicians and Surgeons itself, four years ago, determined that it should be reorganised on a basis of fourteen members, but this reorganisation has been postponed on the ground that this Commission, when appointed, would deal with the matter.

It is the opinion of the University that examinations in Medicine should be conducted by the University only, but that the Council of the College of Physicians and Surgeons of Ontario should be represented at these examinations by representatives, which may be termed, as in the British Medical Act, "inspectors".
We believe that in the interests of the public, inspectors should be appointed by the College of Physicians and Surgeons of Ontario, whose duties should be to report to that body upon the equipment, staff, methods and quality of instruction afforded by the various institutions engaged in the teaching of Medicine.

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For
President Falconer
69 St George St

RE

MEDICAL EDUCATION in ONTARIO

REPORT of BOARD of GOVERNORS
UNIVERSITY of TORONTO

THE COMMITTEE to whom was referred the subject of MEDICAL EDUCATION in ONTARIO and the relations between the UNIVERSITY and the ONTARIO MEDICAL COUNCIL, BEG TO REPORT:

1. In the year 1910, the Government of Ontario was asked, on behalf of the University of Toronto to have the whole subject of Medical Education in Ontario officially investigated and reported upon, so that a well-considered measure might be prepared and submitted to the Legislature, but action upon this matter was not taken by the Government until Mr. Justice Hodgins was appointed a short time ago as sole Commissioner to conduct the investigation and make the report. He has had several Sittings, at which various interests were represented before him, including the University of Toronto. The views of the University were partially explained to the Commissioner by the President. Appended hereto is a copy of the President's address on that occasion. X

2. The President confined his remarks at that time to the questions relating to the educational preparation of those who intended to seek a license or right to

practise Medicine or other means of healing in Ontario, and deferred presenting the position of the University in relation to its degrees in Medicine and its position with reference to the jurisdiction and powers now vested in the Ontario Medical Council.

3. The President communicated with Queen's University and the Western University suggesting that a conference should be held before the views of the University of Toronto upon the matters referred to were formulated and presented to the Commissioner, but the suggestion was not accepted and no conference has been held.

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8. By this "Announcement" certain regulations are promulgated. These regulations set out the courses of study, the lengths of the courses in various subjects named. and the numbers of lectures or demonstrations required to be attended, and it is stated that every student must attend such courses "in a University, College or School "of Medicine approved of by the Council". The requirements for examinations are provided for, and the branches embraced in examinations are set out.

9. Although the "College of Physicians and Surgeons of Ontario" is not a teaching body, yet its Council fixes and determines the curriculum of studies to be pursued by every student who desires to acquire the right to practise medicine in Ontario, and the University of Toronto is required by the Statute to observe and teach that curriculum.

The Medical Faculty of the University is made use of by the regulations of the Medical Council for the teaching of students without any contribution towards its cost, yet its students and graduates, notwithstanding their long course in the University, and notwithstanding the proofs of qualification they may have given by their examinations and by their diplomas, are not recognized as possessing any such qualifications, but they must follow the same course, for the same length of time, and submit to examinations as if they had not had the advantages referred to.

10. The duplication of examinations not only entails a hardship upon the students of the Medical Faculty of the University of Toronto, but it also entails upon them unnecessary expense and labor, and shortens the time which should be spent by them in receiving instruction in the

University course. No outside body should have the right to fix any part of the curriculum of studies in any Faculty of the University.

11. The conditions in the Province when the Ontario Medical Council was established, and the reasons for vesting in it the powers it possesses should not be lost sight of. Although there were Acts prior to 1865 relating to the granting of licenses to practise "physic, surgery and midwifery", yet it was not until 1865 that a general Medical Council was established. The preamble to chapter 34 of the Statutes of Canada for that year is as follows:

> "Whereas it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners THEREFORE" etc.

When this Act was passed there were in existence Proprietary Schools of Medicine which carried on the whole work of medical education, in which there was a tendency to lower the standards in the hope of gaining students and making profits, and to counteract this tendency some authority such as a Medical Council was essential in the public interest.

12. The practice of any kind of medicine, surgery, midwifery, or other branch of medicine or the healing art,

is in itself a lawful occupation which any one without special permission by legislative or other authority would have a natural right to pursue. In this respect the practice of medicine, etc., does not differ from the practice of law, or other specialty, and so far as the doing of the things themselves is concerned, it would not be necessary for the State to interfere, but in the course of time, and because of the increase of population, it was found necessary for the State to interfere - not to prohibit the doing of the acts, lawful in themselves, but to regulate the mode of their doing, and the qualifications of those doing them, so as to prevent harm to the public which would ensue by things requiring knowledge and skill being done by persons without the necessary knowledge and skill, and to prevent frauds and impositions upon a confiding and innocent public, which could readily be practised by unscrupulous persons: hence the establishment of the Medical Council, the Law Society, and other bodies constituted for the protection of the public.

13. The true reason for the creation of these bodies is frequently lost sight of by the bodies themselves, and as time goes on the tendency is for those who have received

special powers and privileges solely in the public interest to regard them as having been bestowed for their own interests, and they are inclined to act as if they had certain vested rights which should not be interfered with, though such interference might be called for in the public interests.

14. The conditions in the Province with respect to medical education which called for the creation of the Medical Council, and the vesting in it of powers to determine the qualifications of those seeking to practise medicine, have radically changed. Now there is the great Medical Faculty of the University of Toronto, part of a State institution having only the interests of education at heart, and not influenced by any considerations of private gain and fully equipped to impart medical education and determine upon the qualifications of candidates for its degrees.

15. Your Committee is of opinion that the position in which our great Provincial University is placed by the existing legislation upon the subject of medical education is harmful and humiliating and against public interests, and Your Committee earnestly contends that the degree in

Medicine granted by the University should entitle the holder to registration and to license to practice, without further study or examination, and in support of this contention Your Committee must refer to the exceptional position in the Province held by this University. In doing so Your Committee wish it to be understood that no criticism of any other University is made or intended.

16. Appended hereto is a memorandum showing the equipment of the University for the teaching of Medicine, including the all important subject of Chemistry, and shewing the Hospital facilities for clinical instruction and surgery, and shewing

X

addent of Pathological Bdg – $181.083
Total $781.083

17. The University of Toronto has under Provincial statutory authority made expenditures in connection with the Toronto General Hospital exceeding $ 300.000 and has in addition issued its debentures for the benefit of the Hospital to the amount of $ 300.000. The agreement with the Hospital entitles the University to extensive facilities for clinical and surgical instruction. Arrangements also exist with St. Michael's Hospital, The Hospital for Sick Children, and The Western Hospital, and there can be no doubt that these facilities possessed by this University are unsurpassed in Canada.

X

X

In view of foregoing is this necessary?

18. The expenditure made by the University of Toronto in connection with the teaching of Medicine and kindred subjects necessary for qualification of Medical practitioners is very large and far exceeds the amount of all fees derived from students in Medicine. Appended hereto is a memorandum as to this expenditure.

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18? ~~15~~

The plan in force in Great Britain respecting

UNIVERSITIES CONSTITUTING THE GENERAL COUNCIL OF GREAT BRITAIN.

Royal College of Physicians of London.

University of Oxford.

University of Cambridge.

University of London.

University of Durham.

The Victoria University, Manchester.

The Royal College of Surgeons, Edinburgh.

The Royal College of Physicians, Edinburgh.

The Faculty of Physicians and Surgeons, Glasgow.

The University of Edinburgh.

The University of Glasgow.

The University of Aberdeen.

The University of St. Andrews.

The King's and Queen's College of Physicians in Ireland.

The Royal College of Surgeons in Ireland.

The Apothecaries Hall of Ireland.

The University of Dublin.

The Royal University of Ireland.

The University of Birmingham.

The University of Liverpool.

The University of Leeds.

The University of Sheffield.

The Royal College of Surgeons of England.

The Apothecaries Society of London.

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21. In the Province of Nova Scotia?

~~New Brunswick~~

Dalhousie?

Manitoba

? ~~other provinces~~

22. The following resolution was passed by the Council of the Faculty of Medicine of the University of Toronto, viz:

> "THAT in the opinion of the Council of the Faculty of Medicine of the University of Toronto the degree in Medicine of the University of Toronto should carry with it, without further examination or tests, the license to practice in the Province of Ontario".

And at a meeting of the Senate, held on June 8th, 1910, the following resolution relating thereto was passed, viz:

> "THAT the Senate do approve of the resolution of the Faculty of Medicine and direct the Registrar to forward it with this resolution to the Board of Governors, coupled with a request to take such action as will best secure the object aimed at".

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"by careful selection of students and extraordinary pains in teaching make the very most of the situation) two Canadian institutions, McGill and Toronto, deserve special attention. At Toronto the teaching is wholly in charge of full time instructors, for whose original work splendid provision has been made in laboratories of ideal construction and admirable equipment. In both institutions the shortcomings of the student body, instead of excusing perfunctory work, have rather been regarded as an obstacle to be overcome, a condition to be met". (pp.78-79).

24. Referring to the expenditure made by the University of Toronto in connection with the teaching of Medicine and kindred subjects, it is important to refer to the expenditure of the Ontario Medical Council in connection with examinations and to some of the sources of its income.

Appended hereto is a memorandum based on official reports which shews this income and expenditure~~s~~ for certain years.

In so far as the~~se~~ fees collected from students relate to examinations of students holding degrees in Medicine from the University of Toronto, Your Committee deem them an unnecessary burden upon the students.

YOUR COMMITTEE recommends that it be authorized to present to the Commissioner, who is now investigating the subject, and to support a statement in terms of this Report, as representing the views and position of the Board of Governors upon the important matters discussed, and that the Commissioner be urged to recommend in his report to the Government the necessary legislation to remedy the evils complained of and to give to a holder of the degree in Medicine granted by the University of Toronto the right to registration and license to practice without further study or examination.

THE RELATIONS OF THE MEDICAL COUNCIL OF THE COLLEGE OF PHYSICIANS & SURGEONS OF ONTARIO.

The University is of the opinion that the Medical Council of the College of Physicians and Surgeons of the Province of Ontario should be reorganized upon the lines of the British Medical Council, with the same powers.

It is to be noted in this connection that the chief reason for the above position is that the question of medical education should be in the hands of educationists, rather than of men having no relation to teaching or any experience in it.

The Council of the College of Physicians and Surgeons, itself, four years ago, determined that it should be reorganized on a basis of fourteen members, but this reorganization has been postponed on the ground that this Commission, when appointed, would deal with the matter.

It is the opinion of the University that examinations in Medicine should be conducted by the University only, but that the Council of the College of Physicians and Surgeons of Ontario should be represented at these examinations by representatives, which may be termed, as in the British Medical Act, "inspectors".
We believe that in the interests of the public, inspectors should be appointed by the College of Physicians and Surgeons of Ontario, whose duties should be to report to that body upon the equipment, staff, methods and quality of instruction afforded by the various institutions engaged in the teaching of Medicine.

ONTARIO MEDICAL ASSOCIATION DEPUTATION.

Remarks of chairman of special
Legislative Committee,
R. A. Reeve,

Gentlemen, while as already intimated, this is the most important juncture in the history of the medical profession since the radical legislation of fifty years ago, we wish at the outset to emphasize that in participating in the work of this Commission we are actuated primarily by a desire to promote the best interests of the public.

It goes without saying that in communities which are supplied with well-trained medical men, disease is more effectively prevented and coped with than in less favored countries, and there is therefore a marked reduction in the death rate, -- a great gain in the physical well-being and material wealth of the State. And this beneficial effect is enhanced when by the restrictions of wise legislation, quackery and charlatanism are reduced to a minimum. Such, we claim has been the effect of the Medical Act of this Province in force with some amendments for the past half-century.

No country has been as free from mercenary medical exploiters for very many years, with their costly entail in money, suffering, and death, as Ontario. A new condition of things has arisen which gives the profession some concern, because numbers are virtually practising medicine without the guarantee of fitness which the public has a right to expect. We cannot but feel that occasions occur when the public have in a sense to be protected from themselves. The evil genius of these latter days is to take the short cut to money-making, position, and power; and to substitute the 'rule of thumb' where it can be worked, for thorough training.

One of the world-lessons of the past year, burnt deeply enough to last for all time, is 'efficiency': The arts and crafts are now being provided with technical schools at great cost but with with fine fore-sight, and under the sanction of the State; and in all branches of Applied Science 'rule of thumb' methods will soon be effete. Now, the government of this country which for many years has insisted upon a prolonged and all-round training for prospective practitioners of medicine, safe-guarded by thorough testing of qualifications 'ere granting the license to practice,- is asked to ignore the teaching of experience. Ontario which is in the van in its provisions to enforce preventive and State medicine,--

largely through the initiative and efforts of th the medical profession; must not take any retrograde step by lowering her standard as to medical education and licensing. Hereafter, Canada, and none the less her banner Province, simply cannot afford to take second place. We are therefore in honor bound in the interest of the public whatever its attitude toward the profession, to try to frustrate any attempt to degrade medical education as a stepping stone to practice. The creed of the profession has been and is,- One portal, one standard, course, one imprimatur. We know that all progress has met with opposition and are equally aware that all new things are not improvements. To members of a profession constantly on the quivive for some more useful advance, present standards, good as they are, are not final. They will doubtless be improved upon. Evolution is ever at work, and indeed without outside pressure, definite progress has been made of late years in the medical cumriculum; to wit, increased clinical facilities and reduced book-work and didactid lectures and the fifth year with interneship. There is such a thing as mischievous legislation and we do well to heed the fact. As witness, in the United States where are some of the best medical colleges in the world, there are some which would not be tolerated in any other civiliged country in the world, the status and privileges accorded 'irregulars'are enough to make the gods weep.

H. S. Pritchett, President of the Carnegis Foundation tells us it is little wonder that institutions of all kinds flourish there galore or that "The National College of Osteopathic Physicians and Surgeons which possesses a charter giving it the right to confer degrees of "professor of Physiology and pathology, professor of neurology, psychology and ophthalmology, and professor of applied anatomy and physiology of the eye and brain," and so on through most of the medical sciences, should have certified as its financial basis in 1907, in

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And this in a decade within which 50 medical Colleges in the United States have ceased to exist because of lack of funds to provide modern laboratory and clinical facilities. In a large majority of the States incorporators can hold out a corporation to the community as a college or university without fulfilling the simplest requirements to shew that they can do what the state has given them the right to allege that they can do." And right under the shadow of the Capitol, in the District of Columbia," any five citizens of the United

States, residents anywhere, altho all of them might be unable to read and write, and might be dependents on the community in a poorhouse, can form themselves into a University, "under authority of an act of Congress."

The number in that country has now fallen below one hundred, and there is every indication that the reduction will continue. Only those medical schools that are directly well-endowed or are a part of or closely affiliated with generously financed universities or colleges can survive. The increased demandsfor higher standards in medical education and the high cost of instruction in the various sciences concerned together have driven the medical school back to its legitimate and historic home - the university. 'all the medical schools of Canada are connected with Universities.' More than fifty medical schools at the present time are connected with universities either through birth, complete amalgamation or affiliation. Those which cannot bring about this desired association must perish."

The explanation of much that is unintelligible or anomalous, and discreditable in the United States is politics and democracy at their worst. This will explain the wretched apologies for properly equipped medical schools found by Mr. A. Flexner of the Carnegie Foundation, who reported as a result of personal visits that among regular and homepathic schools there were some good and some bad. The Osteopathic schools were all bad." " The most striking general characteristic of the osteopathic schools at that time (1909-10) was their outspoken and purely mercenary character. Without a single exception they were conducted, and very efficiently and energetically conducted, as business enterprises for the making of money. "There was not a single osteopathic school in the country that had any definite entrance requirements whatever. "At the time I visited these schools"he says " not a single osteopathic school in the country possessed a decent laboratory in any subject, not even in anatomy." And we may well in this connection cite the concluding reflections of Mr.Flexner." What is th the duty of a modern stste in respect to medical education? The pith of the matter is this: "It is a question of the State using its statutory powers for the benefit of those who are in no position to protect themselves." One cannot refrain from pointing another moral that inferences drawn from statistics concerning academic and professional matters in the United States may easily prove a broken reed.

And in this Province it is certainly prejudicial to the public and unfair to the medical profession that such laxity of governmental regulations should exist as permits the legalizing of such institutions as the notorious College of Ophthalmology (Toronto) and the College of Mano-therapy (Hamilton).

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It is desirable for the welfare of the general public in the Province that every student desirous of entering upon the study of Medicine must have completed the examinations held by the ~~Education Department~~ Matriculation Board of Ontario of ~~Ontario~~ and called by it "Junior Matriculation in Arts".

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The University authorities are of the opinion that in the interests of the people of Ontario a University degree alone should be the portal of entry to the practice of Medicine. Such a degree should be obtained from the Provincial University or some recognized University in the British Dominions.

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November 12, 1915.

President R. A. Falconer,
University of Toronto,
Toronto, Ont.

Dear President Falconer:-

In answer to your letter of November 9, 1915, I would say that I am in sympathy with your view that the Universities of this Province having Faculties of Medicine and granting degrees therein shall be entitled to consider that such degrees granted, if complying in length of course, breadth of instruction, and character of examination with the demands of the Ontario Medical Council, will carry with them a license to practice medicine and surgery in this Province.

This they practically do in such universities as New Zealand, South Africa, Malta, and Australia when they enter into reciprocity with Great Britain to recognize the degrees of these colonial universities, and give no recognition to our own universities. This is a very anomalous position to take.

Very sincerely yours,

H. A. McCallum
Dean. Western Univ
Med. Fac.
per H. W. Hill

For
Dr CK Clarke
55 Wellesley St

RE

MEDICAL EDUCATION in ONTARIO

REPORT to BOARD of GOVERNORS
UNIVERSITY of TORONTO

P348 ✓70. 563

Vol. XL TORONTO, NOVEMBER, 1915 No. 11

The Canadian Practitioner and Review

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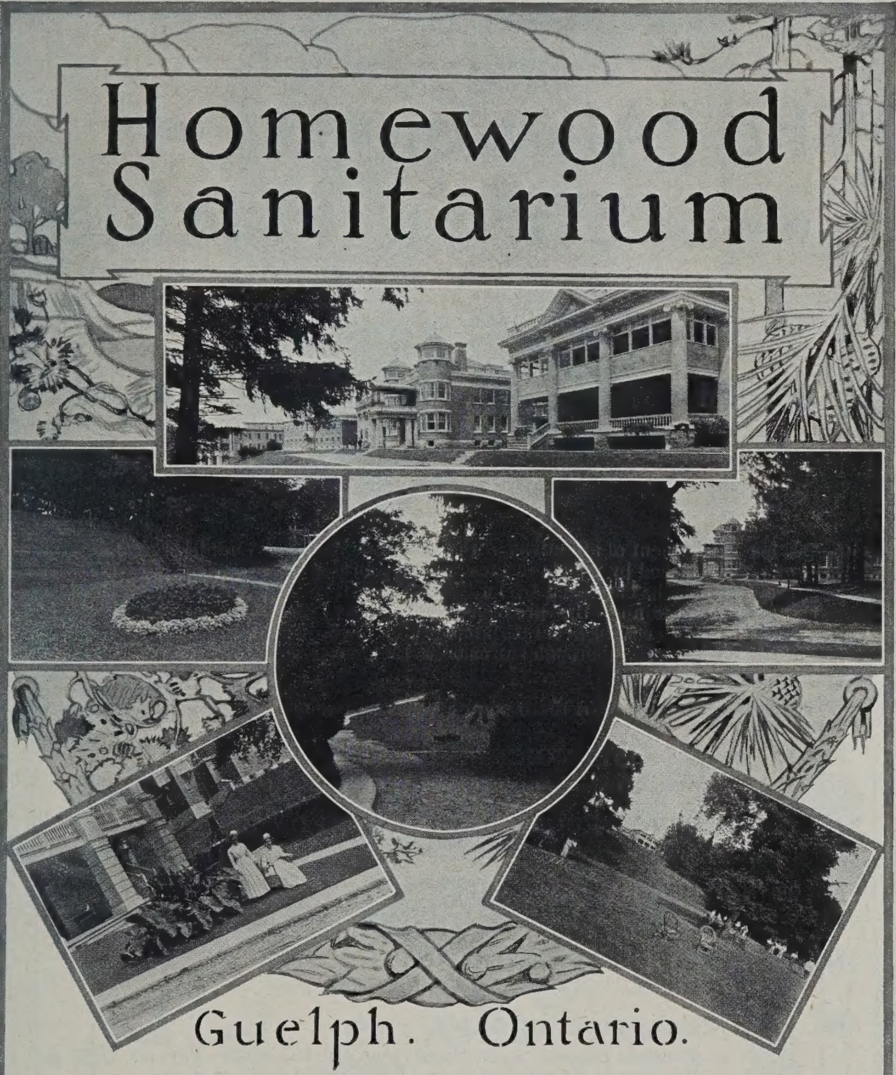

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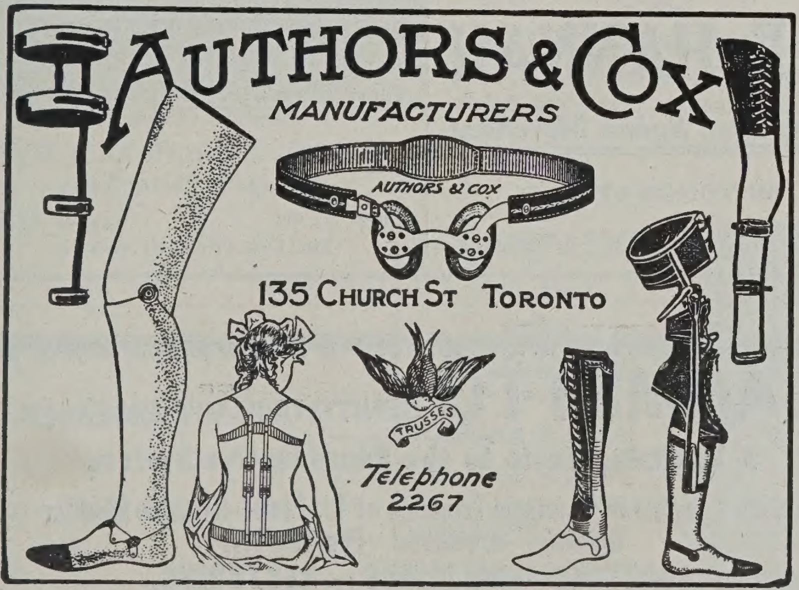

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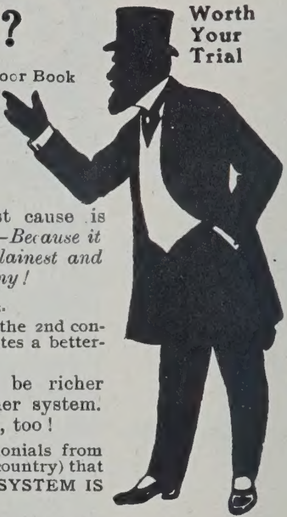

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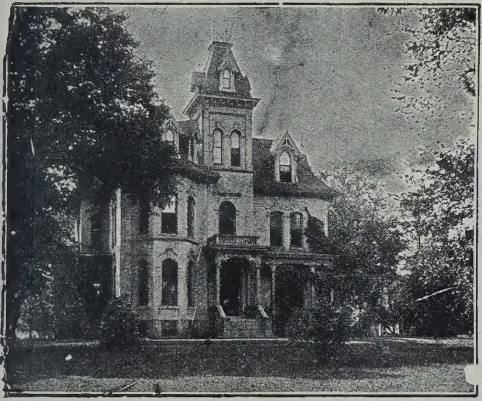

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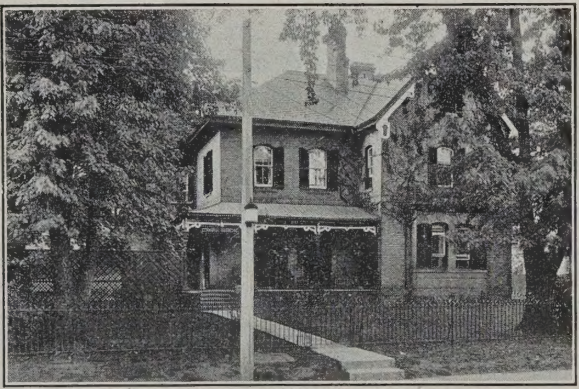

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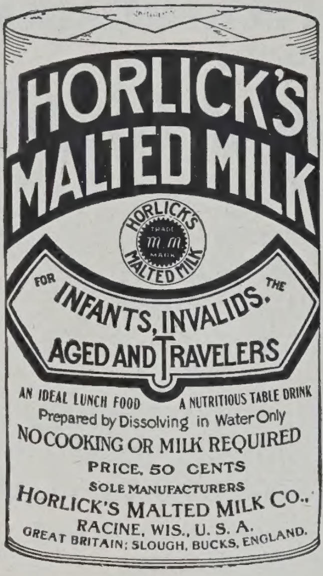
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Original Communications

POISONING BY NOXIOUS GASES *

By John W. S. McCullough, M.D.
Major A.M.C., D.A.D.M.S., Sanitation, 2nd Division.

The following remarks upon gas poisoning at the front are based upon reports in the British journals, and particularly upon a most interesting account of 685 cases which came under treatment at one of the casualty clearing stations during the first week in May last. I have, of course, no more personal knowledge of such cases than any of you, but I thought that perhaps it might be useful to summarize for the medical officers of the camp material which could not be other than useful to you and to which some of you, at least, might not have access.

The series of 685 cases the writer divided into—

(*a*) Those who seemed in imminent danger of death from asphyxiation, 120 in number.
(*b*) The remainder, those suffering from the effect of the gas, who did not appear in immediate danger.

Of the severe group, 33, or 5 per cent., died, 29 of them within thirty-six hours after admission. Many other cases had already died on the field or in the field ambulances.

The first cases came in at 1.30 a.m., the gas having been used against them at about 7.30 p.m. the previous evening. Most of the patients were in a choking condition, some making agonizing efforts to breathe, clutching their throats and tearing at their clothes, propping themselves up to breathe and again falling back exhausted. One can imagine the mental impression conveyed to the medical officers in charge of patients in such a condition. There was marked cyanosis, especially of the lips and ears, and in a few cases there was a light frothy discharge from the mouth and nose. Some, especially the older men, were in a state of collapse, with hands and faces of a leaden hue and with heads falling forward on their chests. The majority of these did not rally. Most of them were, in addition to the gas poisoning, greatly exhausted by continuous fighting against the poison. All except the moribund were fully conscious and fighting desperately for life. Fourteen men of the first 17 died. All degrees of asphyxiation were noted.

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* Delivered to medical officers at Camp Niagara.

The typical case was: cold, temperature sub-normal, conscious, pulse slow and full (except in the collapsed), face cyanosed, expression anxious. Some sat up with head thrown back gasping for breath, others lay on their side with head over the stretcher trying to get rid of expectoration. Respiration was jerky and hurried, often 40 to the minute, with choking cough and frothy expectoration, with inspiration the chest was expanded to fullest capacity, the auxiliary muscles being brought into play as in asthma. Percussion note was somewhat dulled, moist sounds were heard all over the chest.

Progress of Cases.—Those who lived passed through three somewhat definite stages:—

(1) Asphyxial.
(2) Quiescent or intermediate.
(3) Bronchitic.

The first stage lasted about 36 hours; the patient, if he lived, falling asleep and awakening somewhat better. This continued about half a day, during which he was evacuated to the base, if possible.

Following the second stage, bronchitis commenced, which was usually not severe; four of the worst cases dying in this stage. The frothy secretion gave way to a thick, greenish muco-purulent sputum, temperature 104° F., pulse small, rate up to 160, respiration more shallow, going up to 70 per minute before death.

Treatment.—Post-mortem examination having shown that the patients died of acute congestion and œdema of the lungs. The indications were:

(1) To expel excessive secretion from the lungs by emetics and stimulating expectorants.
(2) To diminish secretion.
(3) To support the failing heart and re-oxygenate the blood.

General Treatment.—Patients were placed in open air or in well-ventilated rooms with free air, and given

Extra blankets,
Hot-water bottles,
Hot drinks.

Special Treatment.—(1) Emetics. The first 80 cases were treated with emetics as a routine; later ones, if much choked, with secretion. The most effective emetic was salt solution in 10 oz. doses, followed by tickling the throat with brush or by patient using his own finger. This, by bringing up quantities of frothy expectoration, gave marked relief. V. Ipecac and Apomorphine were not so successful.

(2) Artificial respiration (Schafer's method) (see page 529). Used with striking success, even in moribund cases.

(3) Stimulating expectorants. Every case was given Am Carb, gr. X, 3 ta.; later this was increased to gr. XV and V. Ipecac MXV added. This treatment gave good results.

(4) Posture. The action of emetics and expectorants was aided by altering the patient's position from sitting up to lying on the side with head low, so as to aid expectoration.

To Diminish Secretion.—Atropine gr. 1/30 was given, but was too late to give much result. If given early it should be of service.

To Support the Failing Heart.—(1) Venesection 10 to 15 oz.; blood did not flow freely. Leeches also were used. Results not apparent.

(2) Pituitary Extract, 1 cc was given with marked effect when pulse showed signs of weakening.

(3) Oxygen, given intermittently in the cyanosed cases gave benefit.

(4) Benzoin inhalation with steam in a closed tent gave some relief.

(5) Opium. In cases of extreme restlessness Tr. Opii M. V, for three doses gave great relief, allaying mental strain and producing sleep.

(6) Inhalations of $CHC1_3$ and Amyl nitrite were used without success.

Pathological Changes.—Noted in 10 cases, dying in less than a day to five days after inhalation of the gas.

Respiratory System.—Larynx and trachea congested with some œdema glottidis. The intense congestion of trachea could be traced into the larger bronchi. The trachea and bronchi filled with thin, light yellow frothy secretion. This was highly albuminous and solidified like white of egg when heated. The smaller bronchi could not be traced, being lost in the intense congestion and œdema. The lungs were most voluminous, weight greatly increased above normal. The pleural surfaces of the lungs could be marked out into patches of lighter-grey and dark-greyish brown.

Small sub-pleural hæmorrhages were extremely numerous, lung tissue a deep maroon-red color, fluid flowed from the cut surfaces.

The light-grey patches just referred to were most numerous along the margin of the lungs and on the diaphragmatic surface, but were present up to the very apices. These were found to be areas of actual acute emphysema, and air could be made to pass from one side of such an area to the other. The emphysema did not extend to more than half an inch into the lung. The lymphatic channels stood out, the flow being obstructed.

Heart.—Distended in all chambers, especially right auricle and ventricle—filled with recent clot, no ante-mortem thrombus being found.

Abdomen.—Venous congestion only.

Stomach.—In all cases marked catarrh found. Interior covered with thick yellow mucus with submucous hæmorrhage a marked feature.

Head.—Congestion of the meninges and cerebral tissue.

Histology.—All parts of lungs not emphysematous showed marked congestion of the capillaries and many alveoli filled with an albuminous amorphous substance taking eosin stain. In this substance fibrin could be here and there detected along with red corpuscles and a few leucocytes. A few alveoli were filled with red blood corpuscles.

In the parts affected by emphysema many of the alveoli were broken down, five or six running into one. Those not broken down were much distended, in some cases to twice their size. This distension had obviated any tendency to congestion and accounted for the light-grey patches. The bronchi in the emphysematous patches were empty of contents in contrast to the congested and œdematous lung tissue in the parts.

Summary.—(1) Treatment:

(1) Abundant supply of fresh air.
(2) Emetics of salt water, if patient very cyanosed and had not vomited already.
(3) Am. Carb. gr. XV
 V Ipecac MXV 3 ta.

(4) Oxygen inhalations in cases of marked cyanosis and dyspnœa.
(5) Opium Tr. MV to XV in restless cases to allay mental strain.
(6) Pituitary Extract 1 cc and brandy if heart threatened to fail.

None of the cases remained in the casualty clearing station longer than five days after inhalation of gas.

Two Chief Classes on Admission:

(1) Acute Asphyxiæ.
(2) Sub-acute.

One-quarter of acute cases died, the symptoms being orthopnœa and marked cyanosis. The sub-acute cases showed dyspnœa, never amounting to orthopnœa, and were cyanosed to a lesser degree.

The acute cases, as the post-mortem conditions would indicate, did poorly, the sub-acute did exceedingly well, Am. Carb. in full doses giving best results.

The gas used is entirely or almost entirely chlorine. Shells contain other poisonous gases.

It is the experience of experienced medical officers and consultants that the milder cases entirely recover, that the ill effects of the gases are almost entirely prevented by the use of a good pattern of respirator.

Experiments on animals show that atropine given in the earliest stages prevents the œdema, but when once œdema has set in the maintenance of the patient's strength and aid in removing the frothy fluid with the use of Am. Carbonate gives the best result.

The Schaefer Method of Resuscitation from Drowning and Electric Shock.

The patient is laid on his stomach, arms extended from his body beyond his head, face turned to one side so that the mouth and nose do not touch the ground. This position causes the tongue to fall forward of its own weight and so prevents its falling back into the air passages. Turning the head to one side prevents the face coming into contact with mud or water during the operation. This position also facilitates the removal from the mouth of foreign bodies, such as tobacco, chewing gum, false teeth, etc., and favors the expulsion of mucus, blood, vomitus, serum, or any liquid that may be in the air passages.

The operator kneels, straddles one or both of the patient's thighs, and faces his head. Locating the lowest rib, the operator, with his thumbs nearly parallel to his fingers, places his hands so that the little finger curls over the twelfth rib. If the hands are on the pelvic bones, the object of the work is defeated; hence the bones of the pelvis are first located in order to avoid them. The hand must be free from the pelvis and resting on the lowest rib. By operating on the bare back it is easier to locate the lower ribs and avoid the pelvis. The nearer the ends of the ribs the hands are placed without sliding off the better. The hands are thus removed from the spine, the fingers being nearly out of sight.

The fingers help some, but the chief pressure is exerted by the heels (thenar and hypothenar eminences) of the hands, with the weight coming straight from the shoulders. It is a waste of energy to bend the arms at the elbows and shove in from the sides, because the muscles of the back are stronger than the muscles of the arms.

The operator's arms are held straight, and his weight is brought from his shoulders by bringing his body and shoulders forward. This weight is gradually increased until at the end of the three seconds of vertical pressure upon the lower ribs of the patient the force is felt to be heavy enough to compress the parts; then the weight is suddenly removed; if there is danger of not returning the hands to the right position again they can remain lightly in place, but it is usually better to remove the hands entirely. If the operator is light, and the patient is heavy, the operator can utilize over 80 per cent. of his weight by raising his knees from the ground, and supporting himself entirely on his toes and the heels of his hands—the latter properly placed on the ends of the floating ribs of the patient. In this manner he can work as effectively as a heavy man.

A light feather or a piece of absorbent cotton drawn out thin and held near the nose by some one will indicate by its movements whether or not there is a current of air going and coming with each forced expiration and spontaneous inspiration.

The rate of operation is 12 to 15 times per minute, and should not exceed this; the lungs must be thoroughly emptied by three seconds of pressure, then refilling takes care of itself. Pressure and release of pressure—one complete respiration—occupies about five seconds. If the operator is alone he can be guided in each act by his own deep, regular respiration, or by counting, or by his watch lying by his side; if comrades are present, he can be advised by them.

The duration of the efforts at artificial respiration should ordinarily exceed an hour; indefinitely longer if there are any evidences of returning animation, by way of breathing, speaking or movements. There are liable to be evidences of life within twenty-five minutes in patients who will recover from electric shock, but where there is doubt the patient should have the benefit of the doubt. In drowning, especially, recoveries are on record after two hours or more of unconsciousness; hence, the Schaefer method, being easy of operation, is more likely to be persisted in.

Aromatic spirits of ammonia may be poured on a handkerchief and held continuously within three inches of the face and nose; if other ammonia preparations are used they should be diluted or held farther away. Try it on your own nose first.

When the operator is a heavy man, it is necessary to caution him not to bring force too violently upon the ribs, as one of them might be broken.

Do not attempt to give liquids of any kind to the patient while unconscious. Apply warm blankets and hot-water bottles as soon as they can be obtained.

Exophthalmic Goitre and Tuberculosis

Bialokur thinks that there is a causal connection between tuberculosis and Basedow's disease. In 10 per cent. of his tuberculous patients he found symptoms of exophthalmic goitre; predominatly in women, one man to ten women. Symptoms of excessive thyroid functioning may occur in the very incipient stage of tuberculosis. They seem independent of the gravity of the case, the age, sex, etc. In fact, he thinks that symptoms of Basedow's disease may indicate the existence of a latent tuberculous infection. When tuberculous symptoms are pronounced, the symptoms of Basedow's disease change the clinical picture, producing a thyroid-tuberculosis combination. Successful treatment of the exophthalmic goitre symptoms may improve the pulmonary process.—*J. A. M. A.*

DERMOID CYST FREE IN ABDOMEN DURING PREGNANCY

By Jasper Halpenny, M.D., Winnipeg.

Mrs. Mary Black was admitted to the Winnipeg General Hospital, April 1st, 1915. She was a nurse in Londonderry from the age of 22 to 32, during which time she was not off duty one day.

She was then married, and her first confinement was a difficult one—instruments having been used. The second confinement was easier.

In November, 1913, she had a miscarriage at three months. She was again pregnant four and a half months before she was admitted to the hospital.

On March 28th, 1915, at 9.30 a.m., she was working about her house as usual, when she had a sharp, sudden pain in the right side, which made her feel sick and faint. She got to the bed, but fell on her knees, and had to be assisted into bed. She was given some whiskey, which she vomited. The bowels moved. After a little the pain became less with occasional exacerbations. She remained home for three days, during which she took no food, but water in small quantities. At the time of admission her temperature was 100 4-5, and her pulse 72. The white blood count was 12,000. There was extreme tenderness over the right lower quadrant of the abdomen, over the outer and upper side of the four-and-a-half months' pregnant uterus. A deep breath made her start with pains. The abdomen was distended. There was no appreciable tenderness over any part of the abdomen except as above stated. there was no pathological mass to be felt in the tender area. A diagnosis of acute appendicitis was made. Operation was done immediately. The incision was made along the border of the right rectus and a cloudy fluid was found on opening the peritoneum. Without having disturbed any intra-abdominal tissues a semi-gangrenous looking mass, two-thirds the size of one's fist, presented at the upper angle of the wound. This mass was entirely free. The appendix was chronically adherent, and was removed because it was easy to do so. The rest of the abdomen was left unexplored, and the wound closed without drainage. The patient made a smooth recovery, and left the hospital on the 14th day.

The tumor proved to be a dermoid cyst, which had so twisted its pedicle that it became entirely detached. There were practically no shreds at the former site of the pedicle.

6 East Gate.

PRESIDENT'S ADDRESS—ACADEMY OF MEDICINE, TORONTO*

By Dr. W. H. B. Aikins.

The Medical Profession and the War—The Cancer Problem.

At a time like the present when such momentous events are happening day by day on the Continent of Europe, and the destinies of the nations of the world are trembling in the balance, most of us find it extremely difficult to concentrate our minds on any subject which is not directly or indirectly connected with the war. This is not to be wondered at when we consider that it is by far the most terrible conflict recorded in history, the result of which will influence the future course of events throughout the whole of the civilized world. The state of things in Europe has been recently very vividly brought home to us in Canada, owing to the fact that so many of us have already lost those near and dear to us on the battlefield or in that great tragedy of the sea, the sinking of the "Lusitania," but we rejoice to know that our soldiers have worthily upheld the traditions of our race, and that this country has reason to be proud of her sons.

In no previous war has the medical profession, not only of the British Islands, but also of the Overseas Dominions, played such an important part, and there was everywhere a prompt response to the demand of the army for civilian surgeons to supplement the work of those belonging to the service. Many of the senior students in the various medical schools also volunteered for employment as dressers.

As you all know the response from those of our profession in Toronto has been most gratifying. The Army Medical Service of the First Contingent took many of the Fellows, and with the subsequent contingents, Clearing Hospital and University of Toronto Base Hospital, there has been an increasing depletion of our ranks. Sixty-one Fellows of the Academy of Medicine are now on active service. The medical student body of Toronto University has not been behind in their response to the call. Of the undergraduates in medicine, six officers and eighty-eight men have gone, while there are 252 men serving from the graduate body of the Faculty of Medicine.

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* Address before the Academy of Medicine, Toronto, October 5th, 1915.

You will remember that very soon after the beginning of the war the Fellows of the Academy of Medicine pledged themselves, as a patriotic duty, to undertake without charge the professional care of the needy dependents of any men serving with the allied armies during the war now going on; and you have this evening listened to the report of the Patriotic Relief Committee, and can realize how well and truly that pledge has been implemented by the Fellows of the Academy. From the report of the Hospital Supplies Committee you have also learned how very active the Fellows have been in this matter.

From all parts of the country came offers from private individuals of accommodation for invalid soldiers and sailors, and of large country houses to be used as convalescent homes for the sick and wounded. Australia, New Zealand, South Africa, India, and our own Dominion of Canada, have given splendid and magnificent assistance in hospital equipment and personnel, and in the sermon preached by the Archbishop of Canterbury at St. Paul's Cathedral on August 4th, the anniversary of the declaration of war, he says that, " the temper of the whole of the British Empire has been worthily reflected by medicine. A firm resolution to endure to the end and a hope for the victory of the right are displayed in the hearty cooperation between our citizens in all parts of the world in the medical conduct of the war." The United States has also done much to help in the treatment of our wounded soldiers, and has made generous contributions in the shape of hospital equipment and personnel.

The war can scarcely fail to have a more or less arresting effect upon medical progress in some directions, in view of the fact that in all the countries concerned so many men engaged in medical investigation and research have, at any rate for the time being, been called away from their work. The interruption to the exchange of scientific data is also a serious obstacle to progress. Many medical meetings which were to have been held during the present year, have been postponed. The next International Medical Congress which was arranged to meet in Munich in 1917, has suspended the work of organization, and in the *Deutsche Medizinische Wochenschrift* there is an editorial to the effect that it is probable that the feelings of hatred excited by the war will not have died out by that time, so that it would be difficult to welcome representatives of the countries now fighting Germany with any degree of cordiality.

In fact Germany seems to be preparing for isolation from the external medical world, and it is announced that the German scientists have commenced a campaign against all medical words of English, French or Russian origin, and that a committee is to be formed for the purpose of framing a purely German medical nomenclature.

This isolation from the rest of the world may not be an unmixed evil, if the opinion expressed by Dr. Greely, in the *Boston Medical and Surgical Journal,* of September 10th, 1914, is correct, namely, that in Germany the scientific side of medicine is over-developed, whilst the human side is greatly neglected.

The sublime ignorance of the facts in regard to the origin of the war shown in the extraordinary manifesto issued towards the end of last year by the German Intellectuals, including such names as the late Prof. Ehrlich, some of the assertions in which are in direct opposition to the statements contained in the German White Book, cannot fail to discredit German science. Can we ever trust the German scientists again?

Soon after the beginning of the war we began to realize how dependent we were upon Germany for the supply of certain drugs, in the manufacture of which she had acquired a monopoly. These included a large number of extremely valuable drugs, which had displaced many of the older remedies, such as the whole range of synthetic drugs, analgesics, antipyretics, alkaloids, salicylates and potash salts. The fact that Germany possessed a monopoly in the manufacture of aniline dyes has caused a very considerable inconvenience. The manufacture of many of these products had originated in Britain, but had afterwards been applied by German manufacturers. One of the chief difficulties in manufacturing them ourselves was that hitherto Germany had had an exclusive supply of the raw material required. There has since been considerable progress in the manufacture of the products formerly supplied by Germany, but there are still many difficulties to overcome before this industry is established on a satisfactory basis.

It is sometimes asked if war offers any compensations for the harm it undoubtedly does in hindering the advance of science? Much has already been learnt in regard to the proper treatment of septic wounds, and as to efficacy of inoculation in the prevention of the diseases which have in previous wars caused more deaths than the actual battles themselves. The vigorous efforts taken in Serbia by the British and American doctors have been so successful that typhus, relapsing fever, cholera and smallpox are now almost stamped out, and so far the health of our troops in France, in England and at home has been extraordinarily good.

At the end of the first year of the war it may be said that the value of the medical work in the Army cannot be too highly estimated, and the practical absence of epidemic diseases and efficient sanitary organization has meant a gain of innumerable lives to the allied armies. The heroism of the troops in battle has been equalled by that shown in the hospitals, and the wounded have been attended with courage, assiduity and success, often under the most trying circumstances. Very warm tributes have been paid to the courage and professional efficacy of the Medical Corps by the highest military and political authorities. They all agree that the medical men have rendered most heroic services, and that their courage and devotion is beyond all praise.

I quote the following paragraph from the *Daily Mail,* which appeared soon after the battle of Neuve Chapelle: "A bright page in the story of British heroism in the battle of Neuve Chapelle is the conduct of the doctors. As always they distinguished themselves by their fearlessness under fire and their gallantry. Their losses were heavy for they exposed themselves without thought of danger."

Amongst the results of the war which are of special interest to us in Ontario is the establishment of medical reciprocity between Ontario and Great Britain. This became necessary on account of the necessity for those holding the license of the College of Physicians and Surgeons of Ontario to go with the Canadian contingents to Great Britain and France, and therefore to work under the War Office. The Council of the College passed the enabling legislation in December last, the Lieutenant-Governor subsequently giving the Royal Assent. In the *Lancet* of September 4th, a notice appears from the Registrar General of the Council of Medical Education and Registration of the United Kingdom, containing the following paragraph: "That any person holding the license or membership of the College of Physicians and Surgeons of Ontario, granted after examination in Medicine, Surgery and Midwifery, together with a license to practise in that province, shall be entitled to register in the Colonial list of the Medical Register, providing he satisfied the Registrar regarding the other particulars set forth in Part II. of the Medical Act, 1886. Degrees in Medicine granted by the Queen's University, the Western University and the University of Toronto may so be registered as additional titles provided they are registered in Ontario."

It has been assumed by some that this war is likely to result in an enormous amount of more or less permanent nervous and mental suffering and incapacitation amongst the soldiers, but although there is no doubt that a certain number of them become unnerved by the horrors of the battlefield, time has shown that a large proportion of these recover after rest and suitable treatment. In an address recently given by Lord Bryce, he states that the effect of the fighting on thousands of our men has been to sober them, to stir their deepest thoughts, and inspire them with an urgent desire for a more idealistic basis of living, and he holds that the spectacles of millions of men abandoning home, family, ambition and money, and laying down life for a principle is so glorious as to transfigure the pictures of mangled bodies and human beings gasping in the dark struggle against death. He believes that one of the eventual results of the war will be the great decrease in the amount of mental instability, and that people will return to a simpler life, partly from choice and partly from necessity.

Another fact of importance which we may here mention is that neurasthenia and other neurotic conditions are apparently becoming much less common, in spite of the anxiety and strain resulting from the war. This is not difficult to understand, as the experience of most people who have been accustomed to the treatment of nervous conditions indicates that it is not so much the great tragedies of life which are apt to upset the equilibrium of the nervous system but small daily worries persisting for long periods of time, and above all lack of occupation and interest in life.

This war is certainly affecting the Fellows from a pecuniary point of view in that many people who have been accustomed to employ physicians and to pay the ordinary fees can no longer afford to do so. The extent to which the war has affected the medical profession in this respect varies in individual cases, but there certainly seems to be no doubt that consultants and specialists are suffering more than the general practitioners, who in a few cases are benefiting more or less, due to so many of their colleagues having taken up military work of some kind.

Now as to the progress of the Academy since the last regular meeting was held, I may say that 27 new men have been elected, so that counting in the 61 who are at present overseas the total number of Resident Fellows is 404, Non-Resident Fellows, 42; Life Fellows, 5; and Honorary Fellows, 4, making a total of 455. Ten additional names will be submitted at the next Council meeting for election, and it is our earnest hope that before the close of this Academy year the total fellowship may come up to the 500 mark by the adhesion of a number of very able men in Toronto who have signified their desire to join with us.

THE CANCER PROBLEM.

Until comparatively recently it was believed that cancer occurred only in human beings, but the researches which have been carried out have demonstrated the fallacy of the opinion, and it now appears to be definitely established that both benign and malignant growths may develop in any multicellular organism. In the Report of the Imperial Cancer Research Fund, Bashford and Murray state that the results of their investigations indicate that all the histological types of cancer have been recognized both in domesticated and wild animals, although in the latter it is comparatively rare. As regards the domestic animals, it is most common in dogs, but it has also been observed in horses, cows, donkeys and cats, and in a few isolated cases has been observed in pigs, sheep and goats. In domestic birds, such as hens and geese, it is fairly common, and the same applies to fish, more especially when they are artificially bred. It is much more rare in wild animals and birds, although there is evidence to show that they are by no means exempt from it.

As regards man, there is no doubt that it is one of the most terrible diseases which afflict the human race, and that it is responsible for a very large proportion of the deaths from disease in general. Whilst it is unwise to over-estimate the value of statistics, there is no doubt whatever that the endeavors which have been made during the last few years to obtain more accurate statistics in regard to cancer and its mortality have given most valuable information in regard to its geographical distribution, the comparative frequency with which it affects the different organs of the body, and the apparent influence of various occupations on its incidence. The results of these researches indicate that the view which formerly prevailed that cancer affected only civilized races, and that those living under primitive conditions of life and in certain climates were exempt from it, has no foundation in fact, and that it is prevalent to a varying extent amongst all races of the world and in all climates.

As regards the mortality of the disease, a study of the English statistics shows an alarming increase in the fatalities from it during the last few decades. In 1840 the reports show that one person in 5,646 of the total population of the country died from malignant disease; there was one death from it in every 129 deaths recorded, and there were 117 deaths due to cancer per million of the population. On comparing these figures with those for the year 1906 we find that one person in 1,131 of the total population died from malignant disease; that there was one death from it in every seventeen deaths recorded, and that there were 885 deaths due to cancer per million of the population.

On the Continent of America we also see a corresponding increase in the death rate from cancer. In New York the death rate from malignant disease in 1913 was 82 per 100,000 of the total population, whereas for the previous five years the average was 79 per 100,000; in Boston it was 118 per 100,000, as compared with an average for the previous five years of 110 per 100,000; in Pittsburg, 79 per 100,000, as compared with 70 per 100,000 for the previous five years; in Baltimore, 105 per 100,000, as compared with 94 per 100,000 for the previous five years; in Chicago, 86 per 100,000, as compared with 81 per 100,000 for the previous five years; in Philadelphia, 95 per 100,000, as compared with 88 per 100,000 for the previous five years; and in St. Louis, 95 per 100,000, as compared with an average of 85 per 100,000 for the previous five years. The mortality statistics for the whole of the United States give in 1900 a death rate from cancer of 63 per 100,000 of the total population; in 1904, of 70.2 per 100,000; in 1909, of 73.8 per 100,000; and in 1912, of 77 per 100,000.

As regards Canada, we find that in our own Province of Ontario the annual death rate from cancer has increased from 1,253 in 1904 to 1,806 in 1913. This last figure is a fraction above four times as many as those from typhoid fever in the same year, and very nearly as many as those from pulmonary tuberculosis, which claimed 1,955 victims in 1913.

Werner,[1] who has made an investigation of the vital statistics of Baden, states that during the last twenty-five years the yearly number of deaths from cancer has increased by about one-third in that part of the country. Bertillon,[2] who has made a similar investigation in regard to France and most of the other countries of Europe, states that it has doubled in frequency during the last thirty years.

These figures are certainly alarming, and it is, therefore, not to be wondered at that a considerable amount of attention has recently been devoted to the problem of the most effectual means of diminishing the incidence and mortality of cancer. At the same time it should be borne in mind that there are certain factors which tend to modify this increase in mortality, and indeed some writers go so far as to say that in their opinion it is only apparent and not real. These modifying factors include the imperfections in the systems of vital statistics which are employed in different countries, and the recent improvements in methods of diagnosis of cancer and other disease, which renders it probable that an accurate diagnosis is made of malignant disease much more frequently than was formerly the case. Further, it is a generally recognized fact that cancer is more apt to develop in people over forty years of age than in younger individuals, and as the average duration of life has increased, it follows that a larger proportion of people now live to attain this age. But even when due allowance is made for scientific progress and the changes in modern conditions of life there seems to be no doubt that the mortality from cancer is steadily increasing, and that if this increase cannot be checked its ravages in the future will be terrible to contemplate.

The problem of cancer is, therefore, one of vital importance to humanity in general, both from the point of view of prevention and treatment. Societies have been formed in practically all civilized countries in the world with the object of carrying out scientific investigations to determine its ætiology, but so far, although the hypotheses advanced in this connection have been manifold, very little light has been thrown upon it. The quest for its causative agent is analogous to that which was persevered in for so many years without result in the case of tuberculosis, and was at length rewarded by the discovery of the tubercle bacillus. We still remain more or less in the dark with regard to cancer, but there is no doubt that some day in the near or distant future this problem, which is now occupying the attention of so many of our greatest scientists, will also be solved.

Contrary to many popular ideas the investigations of the Imperial Cancer Research Fund have shown that cancer is prevalent amongst both civilized and uncivilized people, amongst all races of mankind and in all climates. It has often been assumed that certain countries, such as India, China and Japan, are comparatively immune to malignant disease, but the results of recent researches indicate that it is by no means so rare in these countries as has generally been supposed. Indeed, the Japanese statistics for the four years from 1899 to 1903 give the average death from it as 0.49 per 1,000, which is higher than that of some of the European countries. Werner and Bertillon have published some interesting statistics with regard to the geographical distribution of cancer. Werner found that its prevalence appeared to be independent of climatic, geological or similar conditions, and that areas in which it was very common and comparatively rare were frequently situated close to one another. In some instances it was rare in districts in which the proportion of the inhabitants over fifty years of age was small, and common in those in which there was a comparatively large proportion of individuals of advanced age. Bertillon found that it was much more common in the north than in the south of France, and that in the area of greatest mortality from this disease, which is situated around Paris, the mortality from it is from three to four times as great as in other parts of the country. The statistics of deaths from carcinoma in other European countries show that the mortality from it in the Mediterranean countries in the year 1906 to 1907 was less than half that in the others. While it is probable that some definite peculiarities are at the basis of the differences in the geographical distribution of cancer, they have so far not been discovered.

I do not propose here to discuss the many theories which have been advanced from time to time to account for the origin of cancer, none of which affords a satisfactory explanation of the nature of malignant disease. The fact, however, that we are up to the present ignorant of its actual cause does not prevent our attacking the problem from the standpoint of prevention and cure. The researches which have been carried out have definitely shown that there are certain predisposing causes, the most important of which is chronic irritation of various kinds, dependent upon mechanical, physical, thermal, chemical or other irritants. In some exceptional cases which have been reported the irritation has not been chronic, but has been the result of a single trauma. In addition to local predisposing causes there appear to be certain constitutional peculiarities which lower the resistance of the organism to this particular disease. Experimental work in mice and other animals has shown definite constitutional susceptibility to cancer, both of the natural and acquired type. People who follow certain occupations are also known to be especially liable to the development of malignant disease. The fact that we now know that such predisposing causes are influential in setting up cancer indicates the desirability of keeping a careful watch for them, and more especially of removing all sources of chronic irritation, where it exists, and of all benign growths which are being subjected to irritation.

There seems, therefore, to be no doubt that chronic irritation, sometimes of long duration, followed by what may be termed a precancerous condition, does in a very large proportion of cases precede the development of cancer. This is most clearly seen in cancer of the skin and mucous membranes, a very striking instance being the development of cancer of the tongue on the basis of leucoplakia. Von Brunn[3] was able to determine previous chronic irritation in 328 of 368 cases of superficial cancer which came under his observation. Lesions of the skin from which cancer may develop include warts, certain varieties of pigmented moles, chronic ulcers, sinuses and old scars from burns. With regard to the internal organs the connection between chronic irritation and cancer is not so easily demonstrated, and there is considerable difference of opinion as to the influence in this connection of ulcer of the stomach, gall stones and urinary calculi.

As has already been said, the increased incidence of cancer affects mainly the higher age periods, and in the majority of cases it develops in individuals over forty years of age. It is said that after the age of forty one woman of every seven, and one man of every eleven, dies from cancer. The age of the patient is, therefore, of importance in making a diagnosis of malignant disease, and symptoms, which in people of an earlier age, may possibly be of slight significance, increase in importance as age advances. For example, vague and indefinite symptoms of gastric distress in a man of forty-five should not be ascribed to mere functional derangement without the most careful and thorough examination, with a view to excluding organic disease. Cancer below the age of thirty-five is rare, but it has been met with exceptionally in much younger individuals.

It is a well-known fact that certain organs of the body are more liable to develop cancer than others, this predisposition of definite tissues varying according to sex. Thus in men the following are attacked in order of frequency:—stomach, liver and gall-bladder, rectum, intestines, œsophagus, tongue, jaw, mouth, lip and breast. In women the order of frequency is as follows:—uterus, breast, stomach, liver and gall-bladder, intestines, rectum, œsophagus, bladder and urethra, face, tongue, jaw, mouth and lip. Cancer of the uterus and that of the female breast form by far the largest percentage of all cancers. The increase in the incidence of cancer as a whole, however, during recent years applies chiefly to cancer of the stomach and rectum, whilst that of the female genital organs has remained practically stationary, and is even said by some writers to be diminishing in frequency.

The investigations which have been carried out do not indicate that environment has much influence upon the incidence of cancer. The one exception to this general rule is that in certain occupations there appears to be a tendency of special parts of the body to the development of precancerous or cancerous conditions, owing to exposure to chronic irritation. This applies especially to workers in coal-tar, soot, petroleum and aniline dyes. The returns of the Registrar-General for England and Wales show that the greatest mortality from cancer occurs in chimney-sweeps.

It is, therefore, beyond all doubt that malignant disease is on the increase. What is, then, the duty of the medical profession? Scores of workers are seeking the etiology of cancer. Others are devoting themselves to the discovery of some sure method of diagnosing the disease early enough to make our present treatment more potent. Still another band of scientists is searching out new remedies and methods of treatment, or improvements of those we already have. Till one or all of these groups is successful, the great body of the medical profession must be content, *first,* to educate the public as to the early symptoms of the disease, so that the patient will present himself to the physician while the growth is removable; and, second, to use every known means to diagnose carcinoma when these patients come to him.

We must look forward to the time, not far distant, when the laity are going to take as active a part in the campaign against cancer as they now do in the treatment and prevention of tuberculosis. I trust that when the public do become fully aroused to the dangers of this disease, the medical profession may be in a position to lead them up to the sanctuary of cure.

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1. Werner: *Munchener Medizinische Wochenschrift,* 1911, LVIII, p. 2325.
2. Bertillon: *La Presse Medicale,* 1911, No. 38, p. 385.
3. Von Brunn: Cited by Gaylor; *Jour, Amer. Med. Assoc.,* 1915, Vol. LXIV. 968.

134 Bloor Street West.

Editorials.

THE TORONTO ACADEMY OF MEDICINE

The Toronto Academy of Medicine has now entered into its ninth year of existence. The first medical society of Toronto was organized something like forty years ago, being known as the Toronto Medical Society. After some years of active work it ceased to exist, and two new societies were formed, known as the Clinical and Pathological Societies. In the year 1895 the Ontario Medical Library was organized. This latter body was ambitious and desired to accomplish much good for the Province of Ontario. Among those who took a very lively interest in the success of the Library Association was Sir William Osler, and he was one of the first to suggest that the different Toronto societies should amalgamate and form one strong institution, which would work in the interest of the medical profession of Ontario. As a consequence the Academy of Medicine was incorporated, March 8th, 1907.

Although the two local societies of Toronto, the Clinical and Pathological, assisted in the organization of the new body, it should be considered that the Academy of Medicine was really successor to the Ontario Medical Library Association. According to the constitution the Board of Trustees of the Academy consisted of three members, the first being Drs. J. F. W. Ross, R. A. Reeve and N. A. Powell.

The opening meeting for 1915-16 was held in the Mining Building (University) on the evening of October 5th, the President, Dr. W. H. B. Aikins, being in the chair. Dr. W. P. Manton, of Detroit, delivered an able and instructive address on "Obstetrics Among the Ancient Romans." An interesting letter from Sir William Osler was read. All were pleased to know that Sir William still takes a keen interest in the welfare of the Toronto Academy of Medicine. In addition to his letter he presented to the Academy two rare old books: Rhaze's "Liber ad almansorem," Venice, 1490; Jenner's "Inquiry into the Causes and Effects of the Variolæ Vaccinæ."

The success of this Academy has been phenomenal and has, we think, surpassed the hopes of its original incorporators. It is now generally known that this success far exceeds anything we have before known in Toronto.

Another interesting event of this year's opening meeting was the election of Dr. Algernon Temple as an honorary life member of the Academy.

THE ONTARIO MEDICAL ASSOCIATION

The officers of the Ontario Medical Association are looking into the history of that organization. They find that it was organized in 1880. In October of that year a meeting of the profession in Toronto was held. It was decided then to make inquiries in all parts of the Province of Ontario respecting the desirability of establishing a provincial medical society. A committee was appointed composed of Doctors Workman, Covernton, J. E. Graham, J. H. Burns, Adam Wright and J. E. White. The following circular was sent to all the local societies, and also to a number of representative physicians in various parts of the province.

"It is hardly necessary to speak of the value and importance of such a society from a scientific point of view, as that will immediately be recognized by all: apart from that it will be calculated to advance mutual interest, increase unity and harmony, stimulate a free interchange of thought, develop increased desires for a knowledge of professional literature to the present day, promote useful and kindly feeling and minimize that undesirable distrust and exclusiveness so commonly attributed to the profession, besides affording fuller opportunity than at present exists in having some place of meeting convenient to the majority.

"It is well known that the State Medical Societies of the neighboring republic have contributed largely to the interest and success attending the meetings of the American Medical Association. In like manner it is reasonable to assume that a vigorous Provincial Society would greatly assist the Dominion Medical Association.

"At a meeting of the profession of Toronto on October 7th, the matter was relegated to a committee who will be pleased to have an expression of opinion from your society in regard to its subject, as well as to receive any suggestions it may make.

"In view of the importance and great advantages to be derived from the best step, it would be desirable to bring the matter before your Society at once.

(Sgd.) "C. W. Covernton.
"J. E. White."

The answers returned were all favorable with one exception. One physician from Ottawa feared that it might injure the Dominion Society. The Counties of Huron, Bruce, Wentworth, Peterborough, Northumberland, Frontenac were strongly in favor of the proposal. The Hamilton Medical Society showed great interest in the matter and worked very cordially with the committee in Toronto. A committee from that body, composed of Doctors MacDonald, MacKelcan, Mullen, Rosebrugh and Woolverton conferred with the Toronto committee, February 22, 1881. At this meeting, which was held in Toronto, it was decided to hold the first meeting of the new Association in Toronto, June 1st, 1881.

"BROKEN" SOLDIERS

" Canadienne," in *Saturday Night*, gives a very interesting description of " Dunedin," the home of Mrs. Crerar, Hamilton, which has been converted into a Home, " where broken soldiers are mended." As announced in our last issue, the formal opening of this institution took place September 15th. Mrs. Crerar is the Lady Superintendent; Mrs. Austin Evans, Whitby, is the Resident Nurse. Among the others who have volunteered their services as nurses are Miss Harvey (the golfer), Miss (Lieut.) Mabel Taylor, Mrs. Snow, and the Misses Cronyn, Russeaux and Findlay. Mrs. Evans was a graduate nurse before her marriage to Doctor Evans, of Whitby, who is now on active service in the R.A.M.C., Egypt. Of the Crerar family, the eldest son, Capt. E. D. Crerar, is with the " Fighting Eleventh " in Flanders. The second son, Lieut. A. Crerar, is in the Royal Canadian Dragoons, and the sixteen-year-old son, Malcolm Crerar, is in the Royal Military College, Kingston; while Mrs. Crerar's elder daughter, Lady Beck, is one of the most active patriotic workers in our own loyal London.

EDITORIAL NOTES

The Commission on Medicine

Hon. Justice Frank Hodgins, of the Supreme Court of Ontario, has been appointed a Commissioner to inquire into all matters connected with the practice of Medicine in the Province of Ontario. This will include an examination of the status of what are known as " regular practitioners," and also osteopaths, optometrists, opticians, chiropractors, Christian scientists, manotherapeutists, etc.

The " irregulars " have made some headway during the last few years, and are striving to take the place to a large extent of what used to be known as general practitioners. As some of our universities, and particularly that of Toronto, are failing to properly educate " general practitioners," we should not be surprised at the success of the " irregulars."

Although the public have a very high respect for specialists and scientists, yet a large proportion of our citizens still like the family doctor.

Those in control of medical education should wake up to the requirements of the situation and immediately discard the Germanic methods.

The Medical Council of Canada

The following have passed the examinations held recently in Montreal: S. M. Anelstine, Kingston; A. R. Bayne, Sherbrooke; J. L. Clarke, Edmonton; A. H. Campbell, Spragge, Ont.; A. D. Campbell, Toronto; J. Carmichael, Collingwood, Ont.; K. A. Denholm, Blenheim, Ont.; D. A. Macleod, Ottawa; B. C. Patterson, Hallville, Ont.; S. O. Rogers, Toronto; G. E. Thomson, Kingsmill, Ont.; W. A. Vanderburg, Hamilton; J. G. Wright, Kingston.

NEWS ITEMS

The many friends of Dr. R. S. Brett have heard with much pleasure that he has been appointed Lieutenant-Governor of Alberta.

The Saskatchewan Medical Association cancelled its last meeting, which was to have been held July 27th, and has decided not to hold another meeting until after the close of the war.

Lady Sibil Grey, daughter of the former Governor-General of Canada, and Lady Muriel Paget have gone to Russia with a complete staff and supplies to organize a hospital in Petrograd.

Dr. Jas. Douglas, of New York, has been appointed Chancellor of Queen's University in the place of Sir Sandford Fleming, deceased. Doctor Douglas, in accepting the appointment, sent with his letter a cheque for $100,000 for the new Library Building of the University.

Degrees Conferred

The following degrees were conferred by Queen's University, September 29th: M.D.C.M.—A. B. Earl, M.B., McDonald's Corners; J. H. Kemp, M.B., Rochester, N.Y.; F. L. Leacock, M.B., Merrickville. Degree of M.B.—E. J. Brennan, North Bay; N. L. Burnett, Springfield, Mass.; W. R. Grant, Sintaluta, Sask.; A. W. Trefry, B.A., Arcadia, N.S.

Sick Children's Hospital

On the morning of April 22nd last the Lakeside Home at Lighthouse Point, Toronto Island, was destroyed by fire. Fortunately, while the main building was destroyed, the nurses' dining-hall, the kitchen, boiler-room and three pavilions escaped.

These were fitted up in May, and on June 4th one hundred children were transferred from the institution on College Street to the Island, and after spending the summer there they were brought back on October 1st.

Ontario Medical Council

We are glad to learn from the announcement of the Ontario Medical Council recently issued that a new Register of Medical Practitioners in the Province will soon be issued. We may say that the red ink appeal is considered to be a remarkable production, but it has been suggested that it might be well to also issue a black ink explanation telling the profession in five or six lines exactly what the Council wishes the profession to do in the way of assisting towards the preparation of a new Register.

Treatment of Pyorrhoea Alveolaris

Gosline (*Boston Med. and Surg. Jour.*). According to their severity, cases of pyorrhœa alveolaris are classified as those with spongy gums, very spongy gums and spongy gums with loose teeth. The treatment advised consists of the administration of emetine hydrochlorine, 1-6 grain, twice a day cubcutaneously, and the application of the wine of ipecac to the gums twice a day for one week, followed by a second week's treatment, in which the gums were swabbed with wine of ipecac, and an injection of emetine hydrochloride, 1-3 grain, was administered once a day. Of 14 cases with spongy gums, 11 showed marked improvement, 2 moderate improvement, and one slight improvement. Of the 12 cases of very spongy gums, those treated locally showed only moderate or slight improvement, while those treated with emetine in addition to the local treatment showed 87.5 per cent. marked improvement. The group with loose teeth and spongy gums showed 78.6 per cent. marked improvement, but in no case with loose teeth did the teeth become firmly set once more.—*Int. Med. Journal.*

WAR ITEMS

Dr. A. M. Fisher, of Woodstock, is now in Egypt.

Dr. V. E. Henderson, Toronto, is the M.O.H. for the alien prisoners' detention camp at Kapuskasing, Ont.

Dr. D. B. Neely, M.P. (Capt.), of Humboldt, Sask., is Medical Officer for the 10th Canadian Mounted Rifles.

According to reports from the Ægean Sea, Doctor Roberts, of Hamilton, and others (not all unfortunately) in the same unit are well.

News came early in October that in a camp of 70,000 Austrian prisoners of war in Serbia 35,000 had died from wounds and typhus fever.

It was reported October 10th that Dr. (Lieut.) E. B. Crompton, of Brantford, who left with No. 4 General Hospital Unit, University of Toronto, has been promoted to a captaincy.

Dr. W. A. Henderson joined the R.A.M.C. in England some time in the latter part of September. He was appointed physician-in-chief to the hospital ship which has since gone to the Dardanelles.

A cablegram from Dr. Walter McKeown announced that his son, Lieut. Woods McKeown (Woody), of the 23rd Royal Field Artillery, England, was sound and well after taking a prominent part in Sir John French's "big drive."

We learn with much regret, through a cablegram received October 13th, that Dr. (Col.) H. R. Casgrain, of Windsor, who was in charge of the hospital on the Island of Lemnos, was seriously ill from dysentery, and was removed to Alexandria. At the same time came another alarming report that Doctor (Capt.) Wishart, son of Dr. Gibb Wishart, of Toronto, was seriously ill at Alexandria. A later report said Wishart was improving.

Canadian Convalescent Home in France

We learn from Mrs. Christopher Robinson, of Toronto, that the Canadian Convalescent Home in Dieppe is continuing to do admirable work. Mrs. Douglas is still Superintendent, and has for her assistants Miss Tait and Miss Burnham, who helped to establish the Home. Miss Murphy, a professional nurse from the staff of Miss Margaret Lash's Hospital, Toronto, is also in the Home.

University of Toronto Base Hospital

Many reports have come during the last few months respecting the impatience of the Toronto University Hospital Unit. Most of its members wanted active work somewhat different to that assigned them at Shorncliffe and other places in England. At one time they expected to replace the McGill unit in France or Flanders, and at another time they expected to go to the Dardanelles or Egypt, or both. That would have meant a division of the unit, which for many reasons was not considered advisable. Consequently three similar units were sent to the Mediterranean, of which two are now stationed in the Island of Lemnos close to Gallipoli, and the third in Egypt. On the 12th of October, Colonel Roberts, the head of the unit, was ordered to prepare for departure at once to the Mediterranean. It was expected and hoped by the doctors of the unit that they would be sent to Serbia.

Canadian Hospitals

Sir Robert Borden, in his address delivered in Toronto, Sept. 27, paid a tribute to the Canadian Red Cross Society and the Canadian War Contingents Association for what they were doing for Great Britain. He praised especially the Red Cross Society's Hospital at Cliveden, and said he left that institution more than ever impressed with the work done by women in Canada, which had made the establishment of such a hospital possible. He then described his trip to France. He went across the Channel in a British destroyer, and landed in Boulogne. After leaving this city he visited four Canadian and one British hospital and also planted maple seeds on the graves of some valiant soldiers. It was, he said, a great honor to do so.

He also said there were at that time in Great Britain, France, the Dardanelles and Egypt sixteen Canadian hospitals —eight in Great Britain, five in France, two in the Dardanelles, and one in Egypt. On the various staffs there were 2,400 men, and on the nursing staffs 525 devoted women. He had visited hospitals in Great Britain and France, and he knew that no hospitals were better equipped, and that in no hospitals had the wounded received better care than in the hospitals which have been organized by the people of Canada.

The Red Cross and St. John's Ambulance

Surgeon-General Ryerson and Colonel Noel Marshall, of Toronto, have furnished the following list, which shows the work accomplished during the last year:

5,000 surgeons, nurses, stretcher bearers, hospital orderlies, motor drivers, etc., sent out.

1,000 motor ambulances, cars, lorries, cycles, repair wagons and motor soup kitchens at work.

$1,000,000 is required for their upkeep for twelve months.

Six motor launches, steam picket-boat and lighter sent to Dardanelles and Persian Gulf.

Four hospital trains running in France and Belgium.

Fifteen hospitals established in France, Malta and Egypt.

Six rest stations in France for wounded men en route.

Two convalescent homes in Egypt.

$700,000 worth of hospital and medical stores sent to France, Belgium, Malta, Egypt, East Africa, West Africa, Northern Rhodesia, China, Persian Gulf and Dardanelles; also $1,100,000 worth of gifts for the wounded, including 1,850,000 articles of clothing distributed.

Twelve store depots for hospital comforts, etc., established in France, Malta, Egypt, and the Dardanelles.

1,200 packets of food sent each week to prisoners of war in Germany.

12,123 items of information about missing and wounded men and prisoners of war collected and communicated to relatives.

Registration and care of graves in France and Flanders.

For our gallant allies.—Four hospitals and one hundred motor ambulances for the French army; hospital and motor ambulances for Italy and Russia; hospitals and staff for Serbia and Montenegro.

Doctors Selected for the R.A.M.C.

On October 9th Dr. (Lt.-Col.) Marlow selected forty officers for the Royal Army Medical Corps in England. These doctors were ordered to prepare to leave at once. The list includes Drs. C. C. McIntyre, A. R. Riddell, S. A. Walker, S. M. Dale, P. J. Harris and G. A. McLarty, House Surgeons of Toronto General Hospital; Dr. E. H. McVicar, St. Michael's Hospital; Dr. H. R. Young, Western Hospital; Dr. E. E. Wilson, Muskoka Hospital; Drs. A. D. Moffitt and J. Cunningham, Niagara Camp; Drs. P. P. Rogers, V. E. Cartwright, G. Carlton and F. L. Thompson, Toronto; Dr. D. A. Warren, Hamilton; Drs. R. Home, T. R. Phipps and A. M. Murray, Toronto; Dr. W. A. McLeod, Erindale; Dr. H. C. Sutton, Port Credit; Dr. J. W. Wheeler, Cornwall; Dr. J. W. Nixon, Georgetown; Dr. A. S. Wallace, Thessalon; Drs. E. Bryson, J. J. Hurley and W. S. Grimshaw, Toronto; Dr. H. C. Moyle, Burlington; Dr. W. B. Seaton, Clifford; Dr. M. D. Kyle, Fergus; Drs. W. E. Dean, M. M. Ferguson and W. W. Conise, Toronto; Dr. G. Cooper, Charlton; Dr. M. H. Embury, Allandale; Drs. D. M. Kilgour and A. M. Robb, Toronto, and Dr. F. A. Ross, Barrie.

Doctor Bruce's Report

Dr. H. A. Bruce (Lieut.-Col.) since his return from the front has told us many interesting things. He referred especially to the good work which is being done by Doctor Nasmith, formerly Director of the Laboratories in the City of Toronto. He sent to the British headquarters the first report on the gases used by the Germans at St. Julien. He expressed his opinion as to the nature of the gases, which has since proved to be correct, and at the same time suggested the means for counteracting their effect. His suggestions were adopted by the War Office. The work which Doctor Nasmith and his associates—Dr. Arthur Ellis and Doctor Rankin, of Calgary—are doing is recognized at the British headquarters as invaluable. Most of our readers are probably aware that Arthur Ellis is a son of Professor Ellis, Dean of the School of Practical Science of the University of Toronto.

Among the hospitals there are over five thousand beds in England and about five thousand in France. There are no hospitals in France superior to the Canadians'. Among those doing admirable work is Dr. (Major) J. T. Clarke, formerly of Bloor Street, Toronto, who was at No. 2 Canadian General Hospital at Treport, France. Doctor Bruce thinks that No. 2 Canadian Stationary Hospital, where Doctors Penticost, Wood, McEwen and Elliott are doing most of the work, is the most complete hospital, and has the finest situation of any in France. He also visited No. 3, McGill Hospital at Canvers, and No. 1, near Etaples, each of which has 1,040 beds. Among those with the 2nd Contingent he saw were Dr. (Col.) J. T. Fotheringham, of Toronto, and Doctor (Major) Merritt, of St. Catharines. At Belleuil he saw Doctor (Col.) Foster, who is now a D.M.S. of the Canadian Army Corps, and Dr. (Lt.-Col.) W. D. McPherson, of Toronto, who has charge of the Second Division Ambulance. With Doctor McPherson are the following from Toronto: Dr. (Major) E. B. Hardy and Drs. (Capts.) P. G. Brown, Jeffs and Geoffrey, and also Dr. (Capt.) J. J. Fraser, of Walkerton. At Nieppe he saw Doctor (Col.) Ross, M.P.P., of Kingston, who is now an A.D.M.S. of the First Division. At Dieppe he saw Dr. (Major) John Amyot, who is now head of the Canadian Sanitary Section of the First Canadian Division, and Mr. (Capt.) Geo. Blackstock, of Toronto, one of Toronto University's best footballers.

Doctor Bruce thinks the war will last for another year at least. Before leaving England he spent a day with the Hon. Doctor Pyne, who is superintending the erection of the Ontario Hospital at Orpington. This hospital will contain 1,040 beds, and will probably be finished early in December.

Personals

Dr. D. W. Montgomery, of San Francisco, visited Toronto to attend the funeral of his mother, October 9th.

Dr. R. W. Bruce Smith, of Toronto, who has been ill since last spring, is now reported to be recovering rapidly.

Dr. C. A. Coon, who was Medical Superintendent of the Kingston General Hospital, has resigned, and is going into general practice in Kingston.

Dr. Jas. T. Campbell, formerly of Whitby, has been practising in Chicago since he graduated from Toronto University in 1889. He recently paid a visit of a few days to Toronto, Oshawa and Whitby. He says that notwithstanding the large number of Germans who live in the City of Chicago, the great mass of its citizens sympathize very strongly with the Allies.

Dr. J. Arthur Sutherland, who since he graduated in 1896 has been practising in British Columbia and Alaska, visited Toronto early in October. He left for the front on October 25th, expecting to go into the service of the French Medical Corps.

The Hon. Doctor Pyne is still in England superintending the erection of the Ontario Hospital at Orpington. The property selected is a thirty-acre estate with a large residence which will be used for administration purposes. Around this building will be erected a number of " huts " similar to those at Cliveden. It is expected that Doctor Pyne will remain in England until the end of the year.

Book Reviews

A Manual of the Practice of Medicine. By A. A. Stevens, A.M., M.D., Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania, Lecturer on Medicine in the University of Pennsylvania. Tenth edition, revised. 12mo. of 629 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Flexible leather, $2.50 net. Sole Canadian agents, The J. F. Hartz Co., Limited, Toronto.

Students for several generations have found this manual excellent for rapid review. A tenth edition has brought everything up to date, without changing the plan of the book, which is by no means a quiz compend. The size and the flexible cover make it easy to carry in the pocket.

The Care of the Baby. By J. P. Crozer Griffith, M.D., Professor of Diseases of Children in the University of Pennsylvania. Sixth edition, thoroughly revised; 12mo of 463 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, $1.50 net. Sole Canadian agents: The J. F. Hartz Co., Ltd., Toronto.

Infant mortality is still one of the pressing problems of public health administration. Anything, therefore, that by educative methods will tend to diminish the mortality rate is deserving of recognition by the medical profession. A book such as the one before us in the proper hands will do an immense amount of good. It is satisfactory to note the increasing number of mothers who are asking their physicians to recommend a book on the care of their children.

Doctor Griffith's book has already proved its worth by the number of editions that have been exhausted. It deals with the babe from pre-natal life, takes up the normal infant, its growth, its food, sleep, clothes, toilet and sicknesses, presenting the subject in a way easily to be understood by any intelligent woman. We are sure the success so well deserved in the past will attend the present sixth edition of this most useful manual.

Pathological Technique. A practical manual for workers in Pathological Histology and Bacteriology, including directions for the performance of autopsies and for clinical diagnosis by laboratory methods. By FRANK BURR MALLORY, A.M., M.D., Medical School, Associate Professor of Pathology, Harvard University; Pathologist to Boston City Hospital, and JAMES HOMER WRIGHT, A.M., M.D., S.D., Pathologist to Massachusetts General Hospital; Assistant Professor of Pathology, Harvard University Medical Hospital. Sixth edition, revised and enlarged, with 174 illustrations. Philadelphia and London: W. B. Saunders, Company, 1915.

That this book should so soon require another edition speaks well for its present popularity.

Like its predecessor it aims at the demonstration of the technique to be followed in practically all branches of pathology. It is well and clearly written, and the text is well supported by the large number of interesting and instructive plates.

The book is well suited for either the general practitioner, or as a reference for the advanced laboratory worker.

There is an increase in the number of pages, due entirely to the introduction of new material.

The Saunders Company have enabled the authors to present their work in a most attractive and durable form.

Pathogenic Microörganisms. A practical manual for students, physicians and health officers. By WILLIAM HALLOCK PARK, M.D., Professor of Bacteriology and Hygiene, University and Bellevue Hospital Medical College, and Director of the Bureau of Laboratories of the Department of Health, New York City, and ANNA W. WILLIAMS, M.D., Assistant Director of the Bureau of Laboratories; Consulting Pathologist to the New York Infirmary for Women and Children. Fifth edition, enlarged and thoroughly revised, with 210 engravings and 9 full-page plates. Lea & Febiger, New York and Philadelphia, 1914.

The popularity of this manual as a text-book of bacteriology is shown by the appearance of a new fifth edition. In it not only has the text been brought up to date with recent observations, but there has been a rearrangement of material designed to render the book more convenient. In Part I a general consideration of bacteriology and protozoology is taken up, together with methods of technique. Part II deals in detail with the individual organisms, while in Part III the practical application of the study to public health and other services is emphasized.

Changes will be noticed in the chapters on Immunity, and Complement Fixation receives a chapter to itself. Other chapters where considerable revision has taken place are those on the streptococcus, pneumococcus, diphtheria bacillus, tetanus bacillus, the bacillus of pertussis, the moulds, and rabies.

In this ever increasing sphere of scientific investigation it is a difficult matter to present the subject in a limited compass, but that the authors have admirably succeeded will be readily seen by a study of this very excellent manual.

Iodine Poisoning

Merlet (*Jour. de Méd. et de Chir.,* 1915, No. 3). Attempts at suicide by means of the tincture of iodine are becoming more and more frequent. There seems to be great variation in the dose treated by different individuals, death having followed the ingestion of 6 grm. of the tincture, while 10 grm. have been taken without ill effects, and 60 grm. merely followed by an obstinate gastro-enteritis.

A variety of antidotes have been advocated, but none compares in efficacy with sodium hypochlorite. It may be given, as a 10 per cent. solution, in almost any dose with no untoward action except that of a purgative. More than an ounce need not, however, be given, and this amount is without ill effects. A great advantage of the drug is that it may be obtained almost anywhere, in an emergency, owing to its general use in photography. It is also by far the best reagent for removing iodine stains from the skin.—*Int. Med. Journal.*

Selections.

Trench Diarrhoea

Remlinger and Dumas (*Rev. d'hygiene et de police sanitaire*) say that the term "trench diarrhœa" covers some very different conditions: infections of typhoid and paratyphoid bacilli, mucomembranous enteritis, diarrhœa connected with improper action of the stomach. In most cases it is simply a more or less acute form of dysentery—a complaint from which no troops in the field are exempt. Diarrhœa and dysentery have prevailed with particular severity among the troops in the Argonne. They appeared at the end of the hot weather, when hostilities began in that district, and were but little checked by the cold of winter. Of the several hundred cases, some were dyspeptics of long standing, others were cases of mucomembranous enteritis, easily produced by the coarse army diet, consisting largely of meat, independently of any stay in the trenches. Another was a case of paratyphoid. In most of the cases, however, the patient had never suffered from gastric or intestinal trouble. Soon after he entered the trenches, where he felt the fatigue and cold intensely, the diarrhœa appeared, beginning with four or five soft yellowish stools in the twenty-four hours. Gradually the number increased, especially at night; the fæces became more liquid and clear, and greenish instead of yellow. At the same time colicky pains preceded defæcation, which produced no feeling of relief. Tenesmus supervened, and the number of stools increased to twelve or fifteen, some of them greasy or bloody, and two-thirds of them at least occurring during the night. There was never any fever, but slight constitutional disturbance in the way of loss of strength and appetite, slight frontal headache, and sometimes nausea and vomiting. The only treatment required was to keep the patient warm and quiet in bed, when a few days effected a complete cure in the majority of cases. In a few cases serious, but rarely fatal, dysentery occurred. In the fatal cases the autopsy showed lesions of the large intestine and hypertrophy of the mesenteric ganglia. The small intestine was healthy, and Peyer's patches were neither ulcerated nor hypertrophied. The spleen was hard and shrunken, thus excluding all action by Eberth's bacillus or para-typhoid bacilli. Microscopic examination of the stools showed the features characteristic of dysentery, and animal parasites, such as the eggs of ankylostomata, were never found. The causes of trench diarrhœa are said to be exposure to cold and wet, and to the want of warm food. In the case of the large numbers of men unaccustomed to much meat, the fact that the rations consist almost exclusively of beef was certainly a contributory cause. Few of the patients attributed their malady to water. Although a few admitted they had drunk water from shell holes or from sources of doubtful purity, most of them said that the cold enabled them to a large extent to do without drinking anything but wine, tea, or coffee. Now, all the causes above mentioned must be regarded as predisposing only. The presence of a special bacillus is essential, but it seems to have little effect alone, as it has been found in the fæces of men who have not been exposed to the predisposing conditions, and who have remained in perfect health. The bacillus seems to be derived from the trench mud contaminated with fæcal matter. This gets on to the boots, thence on to the hands and the food. In the summer dust and flies also carry the infection. Moreover the infection, even if it does not occur in the trenches, may take place in the villages hard by where the men go to rest, after five or ten days in the trenches, for about an equal period. The result is that the villages are crowded, and it is impossible to secure proper sanitary precautions. Further, most of the food for the men in the trenches is cooked in these villages, so that the bacilli may also be carried to the trenches from the kitchens. What is now called ''trench diarrhœa'' has always been rife in the Argonne, and presented no difference of character in the summer of 1914 from what it has been in previous summers.

Haemorrhagic Nephritis due to Novocaine-Adrenalin

Lenschow (*Norsk Magazin for Laegevidenskaben*) records the case of a man, aged 21, who had never undergone a serious illness. On September 10th, 1914, he was operated on for inguinal hernia on the right side. A general anæsthetic was dispensed with, and a subcutaneous, subaponeurotic injection of novocaine-adrenalin was given. A 1 per cent. stock solution of novocaine was boiled, and then adrenalin was added, and altogether 70 c.cm. of the novocaine solution and 14 minims of adrenalin were used. The dosage of the former was 70 cg. and of the latter 0.7 mg. The operation was satisfactorily completed and the wound healed by first intention. On the day following the operation the patient complained of dull pain in both lumbar regions. The urine was blood-stained, and a heavy brown-red deposit was found under the microscope to consist of red cells and a great quantity of hyaline and blood cell casts. The kidneys were not palpable and there was no rise of temperature. The hæmaturia gradually diminished, and when the patient was discharged, sixteen days after the operation, the macroscopic appearance of the urine was normal, and it contained no albumin. There were, however, still a few red cells to be seen under the microscope, but no casts. The author points out that there has apparently been no previous record of nephritis following an injection of novocaine-adrenalin. The cases of poisoning by this preparation have been distinguished exclusively by symptoms referable to the vascular and central nervous systems. Subcutaneous and subfocal injections of such a small quantity and of such a dilute solution of novocaine-adrenalin as given in the author's case have not hitherto caused any toxic symptoms. It may be suggested that the hæmaturia was independent of the anæsthetic and that the association of the two was purely accidental. The author dismisses this hypothesis, and considers that the rapid development of the hæmaturia after the operation and the absence of fever was indicative of a toxic effect. But he does not know which of the components of the novocaine-adrenalin was to blame; he suggests that in the future the urine should be examined when large injections of novocaine-adrenalin have been given.—*British Medical Journal.*

Congenital Defects of the Anus and Rectum

Brenner (*Surgery, Gynæcology and Obstetrics*) publishes a report, with comments, of 61 cases of atresia of the anus and rectum under his observation. The varieties were as follows: Atresia ani simplex 27 cases, 17 reported as in males, 6 reported as in females, and 4 where sex was not reported; atresia of the anus and vulval outlet 10 females; atresia ani with complete occlusion by a membranous diaphragm 3 cases, 2 male and 1 female; atresia ani with perineal outlet 2, 1 male and 1 female; atresia ani with scrotal outlet 2 males; atresia recti 12, 9 in males, 1 in female, 2 sex unreported; atresia recti with vaginal outlet 3 females; atresia recti with urethral outlet 2, 1 male and 1 female. The operative treatment is also tabulated. Perineoplasty (mostly proctoplasties) 29, of which 19 proved successful, 6 died of the operation, 4 died after more or less perfect recovery, the surgical mortality being 24 per cent. Inguinal colostomy 11 cases, 2 successful, 4 died of the operation, 5 later, surgical mortality 66.6 per cent.; perineal dissection for fistulous openings 10 cases, 9 successful, 1 died after recovery, the surgical mortality being *nil.* Lastly, in two cases coeliotomy and proctoplasty were combined, one dying of the operation. Brenner observes that this procedure, a novel and unique technique, promises good results in selected cases. He notes that his statistics demonstrate that perineal dissection for fistulous openings gives excellent results, and is a safe procedure. The 29 perineoplasties for anal or ano-rectal obstruction show a mortality of 24 per cent., which is, after all, much lower than before the era of aseptic surgery. Inguinal colostomy, though advised by some authorities as the procedure *ab initio,* is attended with high mortality, 66 per cent., and therefore must be condemned excepting as a last resource.—*British Medical Journal.*

The Attitude of Dutch Scientists to German Kultur

The *Deutsche Medizinische Wochenschrift* for June 17th devotes a good deal of space to a plaintive discussion of the unsympathetic attitude adopted by Dutch medical men to their German colleagues. Doctor Seydel writes that Dr. G. van Rijnberk, editor of the leading Dutch medical journal, *Tijdschrift,* has drawn unkind comparisons between the scientific achievements of many poorly equipped Italian laboratories and the princely establishments of many German "Bier-universities." This contemptuous reference to the convivial tastes of the German scientists is not, in the opinion of Doctor Seydel, worthy of the serious attention of his countrymen, but he deduces from other remarks by the Dutch editor the existence of a widespread movement in the ranks of the Dutch medical profession against Germany. It appears that in the past much of the work of Dutch scientists has been published in German, where it has been submerged in the flood of gigantic tomes and series which for several decades have poured from the German press, so that its educative value has been lost. Foreign professors in Holland are usually Germans, and these imported teachers are in the habit of lecturing in their own tongue. Dutch textbooks are scarce, having been to a great extent supplanted by German works. The Dutchman seeking post-graduate teaching generally goes to Germany, which is also the chief foreign source of instruments and medical appliances. There is a powerful movement afoot in Holland to counteract these Germanic influences, to nationalize Dutch science, and to cultivate greater self-reliance and independence. Holland does not mean to rob herself of the fruits of scientific research elsewhere, but it is her ambition, in addition to fostering science at home, to exchange the one-sided yoke of German kultur for a wider and more international scientific intercourse with all her neighbors. Referring to the value of Germany's scientific achievements as compared with those of her neighbors, Dr. van Rijnberk is said by Doctor Seydel to have written: "Still to-day, the great ideas in science germinate repeatedly in France and England, and even in Italy and the Netherlands, whence they are transported to German soil, where they bloom into the perfect plant ready for export." Dr. J. Schwalbe, editor of the *Deutsche Medizinische Wochenschrift,* deplores this attitude of Dutch scientists to Germany, and he interprets the Dutch propaganda not only as a nationalist movement, but also as a movement prompted by actual hostility to Germany. Dr. H. Treub, professor of gynæcology in Amsterdam, who has protested against the appointment of Germans to Dutch professorships, comes in for severe censure for poking fun at Prussianism. It is, in the German editor's opinion, deplorable that Professor Treub should symbolize Prussia in 1813, 1870, 1914, 1915, and 1920 by a series of casts of deformed fœtal heads, the Prussia of 1920 being represented as an anencephalic monster!—*British Medical Journal.*

Digitalis Dosage

In the development of the various branches of medicine the department of therapeutics has proceeded more slowly than most of the others, especially in the matter of drug treatment. The activity of the laboratory has added a few valuable remedies to our armamentarium, but much of the research on this subject has tended rather to disprove the value of many drugs, both old and new. The number of really invaluable drugs is certainly very small, but it includes digitalis. Digitalis has been studied at length by many investigators and its mode of action has been fairly definitely established. Of its dosage less is satisfactorily known. Different samples of the leaf and different preparations vary enormously in their potency and much effort has been devoted to the problem of finding a means of standardization. Of the standards proposed, the "cat unit" of Hatcher is becoming accepted as the most reliable for translation into dosage for man. The cat unit, it may be explained, is "that amount of the drug which is just sufficient to kill one kilogram of cat when slowly and continuously injected into the vein. . This is expressed in terms of milligrams of the drug, whether it be a pure principle or the leaf."

Following this method of standardization Eggleston (*Archives Int. Med.*, 1915, xvi, 1) has determined, in a series of cardiac cases, the amount of the drug which has proved necessary to produce "full therapeutic or minor toxic action." He emphasizes the desirability of using a preparation which has been standardized by the cat method, but states that if such is not obtainable it is safe to proceed on the basis that a high-grade leaf has an average cat unit strength of 100 mg. He concludes that "the average therapeutic dose of digitalis, given orally to man in the form of the tincture or infusion, is 0.146 cat unit or about 0.146 c.c. of an average high-grade tincture per pound of body weight." Likewise 0.066 cat unit, or 0.023 mg. per pound is the average therapeutic dose of crystalline digitoxin. In his cases the majority did not vary 15 per cent. above or below this average. The chief drawbacks of digitalis therapy have been first, that it developed its action rather slowly and second, that the stomach not infrequently became intolerant to the drug before the desired therapeutic result could be attained.

Eggleston proposes the following method of administration which he claims will largely overcome these disadvantages. The dose for the patient is estimated on the basis of one-seventh of a cubic centimeter of a high grade tincture for each pound of the body weight. In estimating this dose it is necessary to estimate and disregard the proportion of the patient's weight, which is due to œdema as well as that due to fat in the very obese. One-third to one-half of this dose is given at once and followed, in four to six hours, by one-quarter to one-third the dose. The remainder is to be given in smaller amounts at intervals of from four to six hours. If after the total dose has been given, the patient fails to show the full therapeutic effect, administration of small amounts should be continued until such effect appears. Given in this way, the full effects of the drug may be manifest in from twelve to thirty-six hours in the majority of cases. Eggleston says that the large amounts of digitalis given early do not cause gastric irritation since he has given from 5 to 15 c.c. repeatedly and has never seen the least disturbance as a result. Indeed, when it is realized that the vomiting of digitalis is a result of its central action it will seem probable that large amounts may be given in this way before the onset of nausea. It is, of course, understood that this method is for cases of acute cardiac decompensation and is not designed to supplant the so-called chronic digitalis therapy which is followed in the less urgent cases. He states that both digitalis and digitoxin are probably rapidly and fairly uniformly absorbed from the alimentary canal of man, but digitalis is less completely absorbed than is digitoxin. Strophanthus, strophanthin, ouabain, and true digitalin, on the other hand, are poorly and irregularly absorbed when given by mouth and are unsuited for therapeutic use in this way.—*New York Medical Record.*

Hibernation and the Pituitary Body

"Not only has the phenomenon of sleep offered a problem which has not been solved to the satisfaction of physiologists, but still less satisfactory have been the explanations accounting for the prolonged dormant periods to which certain species of animals are subject, and of which the hibernation of winter latitudes and æstivation of tropical and arid regions are the most notable examples." In these words Professor Harvey Cushing and Dr. Emil Goetsch introduce the report of some observations they have made on this matter in the *Journal of Experimental Medicine* (1915, vol. xxii.). The prevailing view is that the lethargy is due to low external temperature and diminished food supply, but experimental confirmation is not very convincing. Observations on the cells in the nervous system and upon the respiratory quotient also fail to throw light on the cause of hibernation. It is important to remember that besides the lethargy there is a preliminary storage of fat, and during the somnolence a retarded tissue combustion, as shown by lowered body temperature, bradycardia, lowered blood pressure, relative peristaltic inactivity, insensitiveness to painful or emotional stimuli, and slowed respiration. It is known that over-activity of certain glands of internal secretion is capable of accelerating tissue metabolism. It is suggested that a seasonal physiological inactivity on the part of these glandular structures may well account for the phenomenon of hibernation. An animal in which the habit of hibernation exists is the North American marmot or "wood chuck," and the ductless glands of seven of these animals were examined during and after the hibernating period. It was found that though more or less definite evidences of a pluriglandular insufficiency are apparent when the waking is contrasted with the dormant state, nevertheless the most striking histological changes in the latter state occur in the anterior lobe of the pituitary gland. There is a loss of the characteristic cellular topography, a shrinkage of both the nuclear and protoplasmic substance of the cells, and a complete loss of the typical differential staining qualities of the granular content to acid and basic dyes. There was also some suggestive evidence to indicate that when the animal emerges from the dormant state there is marked activity of the reproductive organs, and this is possibly due to the renewed or reactivated pars anterior. Clinical observation of the effect of pituitary gland upon the body shows that with lessened activity of the gland many symptoms—drowsiness, sub-normal temperature, impotence—arise which are strikingly comparable to the hibernating state. Man may even in his normal state show a condition comparable to hibernation; in certain parts of Russia, the peasants, during the winter scarcity of food, pass weeks at a time in a somnolent state, rousing themselves once a day for a scant meal. Seasonal variation in the activity of the ductless glands is not limited to the pituitary gland, as it is particularly evidenced in the glands directly concerned with reproduction—glands which have been shown to have a very close functional inter-relationship with the pituitary body. Whilst changes in this body are probably responsible for the phenomena observed, these changes are themselves due to extra-corporeal factors relating to food-supply.—*The Lancet.*

Chronic Inversion of Uterus: Abdominal Operation

Hedley (*Journ. Obstet. and Gyn. of the British Empire*) reports two cases where inversion occurred during labor and was not reduced for several months. In both he opened the abdominal cavity. A ring was then seen in the normal position of the cervix at its attachment to the vaginal walls, large enough to admit the tip of the forefinger. The Fallopian tubes and broad ligaments were drawn into the ring. Manual attempts proving of no avail in the first case, the ring was divided posteriorly in the middle line with scissors, so that there was a vertical incision involving the posterior wall of the uterus, the vaginal portion of the cervix, and the posterior vaginal wall. The assistant was immediately able to reduce the inversion by very slight pressure from the vagina. The wound was closed with catgut sutures from above downwards. Ventral fixation of the fundus was considered advisable. In the second case Hedley, having opened the abdominal cavity, was able to replace the uterus quite easily by pressing on it through the bladder walls. The drawbacks of making a vaginal examination when the peritoneal cavity was open were thus avoided. The fundus was fixed to the parietes with catgut. Perfect recovery followed both operations. Hedley maintains that the abdominal operation is, as a rule, the proper treatment for chronic inversion. The repositor is slow, tedious, and painful in its action, and the patients are already anæmic, whilst stretching and cutting the cervix from below is only possible in a minority of cases.—*British Medical Journal.*

Appendicitis—The Ochsner Method.

By Everett S. Hicks, M.D.

A visit to the Ochsner clinic in Chicago convinced me that it is a mistake to be rash in operating, at sight, on many cases and that at times the statement " that the operation was too late " might be qualified by the addition " or the time for operation badly chosen."

In reporting two hundred consecutive cases of appendicitis without a death the points of interest are:

1. Sixty-four cases were not treated surgically during the acute attack.

2. One hundred and thirty-six were operative cases. Of these forty-nine were acute cases operated on as soon as they came under observation—twelve were pus cases of whom eight had an abscess drained only, and four had both abscess drainage and removal of appendix, while eighty-four were of the chronic type or were operated after the acute attack had well subsided.

3. Principles of treatment. The medical treatment, if it can be called such, was prohibition of food, physic, and generally of water. Lavage at times. Rest in bed. Mild heat locally. All cases seen in the first forty-eight hours were operated on at once, if willing; a few were operated on on the third day, but cases from the fourth to ninth days were, especially if very ill, treated medically and a safer time waited for.

When one states that the cases were divided between country practice, private hospital, and city hospital work the Ochsner treatment can be commended as a safe and practical outline for guidance even under such varying conditions.—*C. M. A. J.*

Miscellaneous

Gastrin

The discovery by Bayliss and Starling, in 1902, of secretin, a specific chemical stimulant to pancreatic secretion, has been the starting point of much valuable investigation and not a little fruitful speculation in physiologic science. It furnished an example of the stimulation of one organ by a chemical product formed in another, and this led Starling to propose the general term "hormone" to designate substances which act thus at long distance by being transported in the circulation. Soon afterward Edkins, in 1906, expressed the belief in the existence of a comparable gastric secretagogue which he designated gastric secretin, or gastrin. This product was believed to be formed by the contact of certain substances with the pyloric mucous membrane, and to be carried, after absorption into the blood stream, to the gastric glands, stimulating them to secretion.

The main experimental facts on which these conclusions were based have since been substantiated by other workers. As yet no one has succeeded in preparing either secretin or gastrin in a form approaching chemical purity, and much of the controversy attached to the questions raised by these important discoveries has centred in the real specificity of the exciting substances isolated thus far. Tissue extracts are in general likely to furnish products capable of lowering arterial blood pressure. Accordingly, vasodilation has been held responsible by investigators here and there for the resulting secretory activity. If a common pressure-lowering tissue constituent were the sole factor involved in the striking phenomenon of an increased flow of gastric juice observed after injection of so-called gastrin extracts, one would expect a rather widespread distribution of the exciting agent. This appears not to be the case. According to the latest reports in this field, the gastrin is not confined to one part of the stomach, as Edkins and others believed, but is uniformly distributed throughout the stomach mucosa. Gastrin is found in much smaller concentrations in the duodenum, and its presence can just be demonstrated in the œsophagus. Preparations of other parts of the body—pancreas, submaxillary glands, smooth and striated muscle—are without special effect on gastric secretion.

Keeton and Koch believe that gastrin causes a true gastric flow rather than a simple vasomotor response. This is a logical conclusion from the fact that an intramuscular dose of gastrin which causes a fall in blood pressure lasting over four or five minutes may excite a secretion of a duration of an hour and a half, with a maximum flow between thirty and forty-five minutes following the injection. These investigators further conclude that gastrin is of a chemical nature different from that of pancreatic secretin, and that it is a specific substance. Lest the therapeutist become unduly impatient, it may be added that immediately practical possibilities arising out of these findings have not yet been developed.—*J.A.M.A.*

The Decline of Clinical Teaching

We fear that in the noise and press made by laboratory tests and novelties, an art of great importance to physicians is likely to be passed over entirely. We refer to the art of auscultation and percussion, and to the decline of teaching in this respect. Students, for example, of laboratory science, in four years become so saturated with specialism that they are practically incurable. They are crammed with tabloid doses of the various experiments and tests. From such teaching, in which auscultation and percussion are ignored for the vicious influence of fleeting experiment, there is apparently no escape. We think a student will never be able to put down skillfully the diagnosis of any disease unless he is fully acquainted with the art of interpreting the physical signs. At present students seem to hope that laboratory calculations are some wonderful exact science that they can suddenly acquire. They are highly conscious of the exactness of their blood counts and stomach analyses, and pathetically assured that this often unrelated possession renders the study of real clinical phenomena obsolete or needless.

The art of auscultation and percussion is only superficially studied; it will soon be lost, for there will be nobody to teach it. The fact is patent. Skill in this art is rare among physicians, perhaps only less rare than skill in action, which we attribute to the finest surgeons. Auscultation and percussion, which occupied the generation of Auenbrugger and Laennec so effectively, have been studied with small variation by later physicians. When applied by Stokes, Latham, Piorry, and Skoda, these arts were used in their incorrupt and original form. Unfortunately they call up to-day ideas of slipshod improvising and arrangement such as Sahli's in his monstrous work, *Untersuchungsmethoden.* There is really no reason why this elabora-

Children, as soon as their molars appear, should be systematically taught to masticate their food—not bolt it, as is too often the case—thus avoiding digestive troubles later, and insuring sound teeth.

To secure the best and most prompt results, with children, any salutary or otherwise desirable habit is most easily inculcated, if made pleasant to the child. Parents and teachers realize this fact.

There is, probably, no food preparation so admirably adapted to the cultivation of the habit of thorough mastication as

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tion should be, for a modern writer, Gee, was able to write concisely and comprehensively on the same subject. The plethoric book of Sahli has been imitated by what are now called "internists." They have no qualms about space or time or the value of their opinions. The clearness, the almost classical precision of Latham do not appeal to them in the least. We may safely say that the following passage from his *Lectures on the Diseases of the Heart* is a test of knowledge both of phenomena and man. Of the sounds of bronchial breathing, he says: "The sounds can only be learned by the practice of listening to them. It is useless to describe them. They are simple perceptions of sense, which no words can make plainer than they are, when the ear has once become familiar with them. I must leave you to be your own self-instructors, and recommend you to be constantly practising auscultation for the purpose." When practice fails, the teacher must be there to train the pupil's senses, for this skill depends upon the knowledge of the instructor; in our schools he is usually young, without much experience. This almost incredible neglect is productive of the worst mischief in medical education; the professors eschew the long, laborious route of teaching, at the end of which lies knowledge of diagnosis, and troop out as inventors of new signs and tests. These dry bones they describe in books, in which they are all for the cloudy distinction, the prolix statement, trying to create equivalents for the terms of Laennec.—*New York Medical Journal.*

The Pallid School Girl

In view of the modern methods of education, which force the scholar at top speed, it is not to be wondered at that the strenuous courses of study prescribed for the adolescent girl more than frequently result in a general breakdown of both health and spirits. Each winter the physician is consulted in such cases and almost always finds the patient anæmic, nervous and more or less devitalized. In most instances a rest of a week or two, together with an efficient tonic, enables the patient to take up her school work again with renewed energy. Pepto-Mangan (Gude) is just the hæmatinic needed, as it acts promptly to increase the red cells and hæmoglobin, and to tone up the organism generally. It is particularly suitable for young girls, because it never induces or increases constipation.

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Turpentine as a Haemostatic

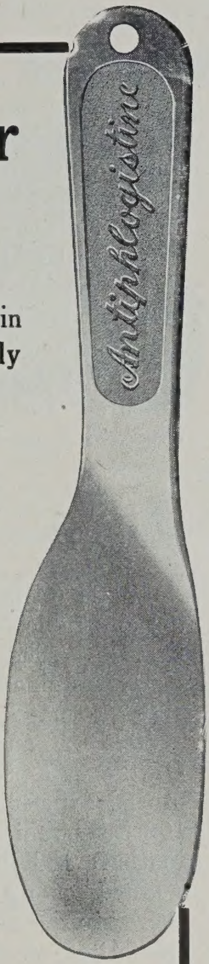
(G. Grey Turner: *Lancet,* July 31, 1915.)

The author calls attention to the value of turpentine as a hæmostatic, particularly in secondary hæmorrhage. Several illustrative cases are given, in which its use has been demonstrated in wounds incurred in the present war. It is useless to apply turpentine until the area to be treated has been thoroughly freed of blood-clot and débris, and although it is not always necessary to use an anæsthetic, it is usually wiser to do so. The cavity is simply packed with strips of lint or gauze which has been soaked in turpentine and squeezed dry. The action of the turpentine on the living tissues gives rise to a slimy pus, which greatly facilitates removal of the gauze in the course of forty-eight hours. Blistering of the skin may occur, but not if care be exercised in the application. The author is more than doubtful of the value of turpentine as a hæmostatic when given by the mouth, as he believes actual contact with the bleeding surface to be essential.

Bacterial Vaccine Therapy

The treatment of infectious diseases with preparations derived from corresponding micro-organisms long since passed the experimental stage, and bacterial vaccines may be said to occupy an assured place in therapeutics. These vaccines, as is doubtless well known to most physicians, are suspensions, in physiologic salt solution, of killed bacteria. An important effect of their administration is to raise the destructive power of the patient's leucocytes against the specific living invaders. Injected into the human organism, bacterial vaccines have an effect similar to that produced on the horse by the introduction of toxins or killed cultures: they cause active immunity. In other words, the administration of a dose of bacterial vaccine stimulates the patient to produce an additional supply of antibodies, thus enabling him to resist the disease.

Bacterial vaccines have several advantages over the ordinary forms of medication. They are determinate or specific in the respective infections in which they are indicated. Their employment relieves the patient of the necessity of frequent "dosing." Being administered by the physician, or under his direct supervision, they enable him wholly to control his cases.



The Spatula is Mightier Than The Sword—

especially when wielded by the Physician, in **Pneumonia,** for example, to spread on **previously verified** and properly heated

Antiphlogistine
TRADE MARK

" About five per cent of all physicians still adhere to the theory that pneumonia, being a so-called self limited disease, admits of no active treatment, but requires only good nursing and patient watchfulness. The other ninety-five per cent, out of their individual and collective experiences, are convinced that, with prompt treatment of the right kind, pneumonia can be often greatly lessened in its severity, shortened in its course, or (as some affirm) actually aborted. We are of the opinion that about seventy-five per cent of the physicians believe there is no single or similar remedial measure which equals Antiphlogistine in its prompt effectiveness in the treatment of this disease."

(From Pneumonia Booklet sent on request.)

Physicians should WRITE "Antiphlogistine" to AVOID "substitutes"

" There's Only One Antiphlogistine"

THE DENVER CHEMICAL MFG. CO.
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Some idea of the scope which bacterial-vaccine therapy has come to assume may be gathered from an announcement which Parke, Davis & Co. are making in current medical journals and which physicians will do well to consult. Twenty-three vaccines are listed in the advertisement. They are supplied in 1-cc. glass syringes, 1-cc. glass bulbs, 5-cc. vials and 20-cc. bottles, all sealed in a manner that guarantees the sterility of their contents. The syringes are designed for the use of physicians who desire to inject the fluid without first removing it from the original container.

Parke, Davis & Co.'s bacterial vaccines are scientifically prepared, and precise therapeutic results may be confidently expected from their administration.

Anti-rabic Inoculations at the Pasteur Institute

Viala (*Annales de l'Institut Pasteur*), gives a summary of the anti-rabic inoculations performed at the Pasteur Institute in 1914. The number of persons treated was 373. In only two years since the foundation of the Institute was a smaller number treated—viz., 341 in 1911, and 330 in 1913. As in 1910, 1912, and 1913, no death occurred among those treated. Of the 373 persons treated in 1914, in 68 cases rabies was proved experimentally to be present in the biting animal; in 102 cases rabies was stated to be present on veterinary examination; and in 203 rabies was suspected. One patient, not counted among those treated, died of hydrophobia, which appeared in the course of treatment. This was a girl, æt. 12, who was bitten severely on the lip, the forehead and the thumb on October 29th; none of the wounds were cauterized; she was treated at the Institute from November 5th to the 10th; symptoms of the disease developed on the 9th, and she died on the 12th. The same dog that bit her also bit two other persons, who, after treatment at the Institute, remained well.

Antiphlogistine acts, through the cutaneous nerves upon the inflamed area, as a powerful stimulant to the blood-vessels and lymphatics, promoting elimination of morbific products. It supplies, by natural, physiological processes, regenerative material to the parts already suffering from that condition of perverted nutrition, which is a part of the inflammatory process.

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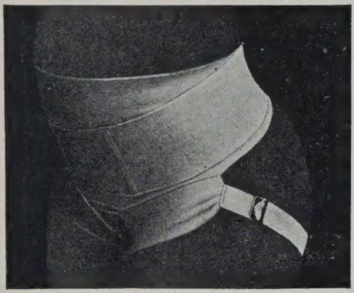

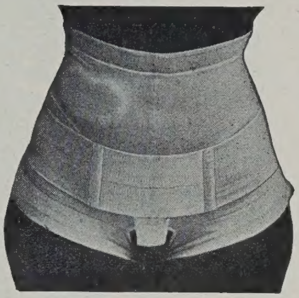

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Spirit. Aether. Nit.

Some of the doubts regarding that much-discussed preparation, spirit of nitrous ether, are cleared up in a communication to the Science Committee of the British Medical Association by Dr. C. R. Marshall and Miss E. Gilchrist (*British Med. Jour.,* 24th July, 1915). A number of samples were examined, made by the various recognized methods: the B.P., the London Pharmacopœia, and the German Pharmacopœia; these three formulæ being of different types. The investigators conclude that the therapeutic action of the spirit—notably its action as a vasodilator—depends upon the ethyl nitrite content. The other ingredients, ethyl nitrate and aldehyde, play relatively little part in its activity. The acidity commonly associated with this preparation is of no importance except from the point of view of incompatibility. It is interesting to note also that spirit freshly made from the B.P. formula contains more ethyl nitrite than that made from the London or the German formula. An important point is, the deterioration of the spirit takes place rapidly, and in terms of ethyl nitrite, its active ingredient. Addition of water liberates the nitrite rapidly; storage of the spirit has the same effect, but deterioration is less rapid when the bottle is well closed and the contents kept from the action of light. It is also suggested that the presence of ethyl nitrate tends to diminish the loss of the nitrite. The conclusions are that spiritus ætheris nitrosi should be as fresh as possible and carefully preserved; also that it should be prescribed as such and not in a mixture, being diluted just before administration.

Benzene Treatment in Leukemia

The principle of the treatment is considered sound by Boardman. He believes that with proper precautions, there is no appreciable danger in using benzol. The improvement is a real improvement, and not due to accumulation of the leukocytes in the central vessels. The improvement is only temporary, as in their other methods of treatment. The treatment is applicable in all chronic cases of leukemia. Bronchitis and anæmia cannot be considered contraindications. The presence of nephritis is a more serious complication and demands more careful consideration. The treatment is more readily administered and is less costly than the Rœntgen ray, and may be

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MENORRHAGIA
METRORRHAGIA
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ERGOAPIOL (Smith) is supplied only in packages containing twenty capsules.

DOSE: One to two capsules three or four times a day.

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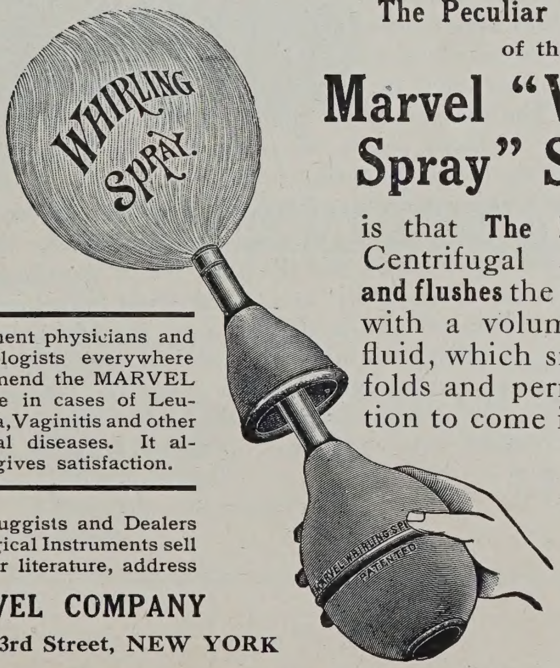

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Prominent physicians and gynecologists everywhere recommend the MARVEL Syringe in cases of Leucorrhea, Vaginitis and other Vaginal diseases. It always gives satisfaction.

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MARVEL COMPANY
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given to those unable to obtain Rœntgen ray. The percentage of improvements is about the same under benzol as under Rœntgen ray.

The drug is best administered in freshly filled gelatine capsules with an equal amount of olive oil; the maximum daily dose not to exceed 5 gm. The treatment must be carefully controlled by frequent blood and urine examinations and discontinued if there is evidence of kidney irritation, or when the leukocytes reach values of 25,000 to 20,000. The best results follow the combined benzol and Rœntgen-ray treatment, the benzol effect apparently being increased by a preliminary Rœntgen-ray treatment. Some cases will not respond to benzol in the usual dosage and in the usual time, and other patients are unable to take the drug owing to gastro-intestinal disturbances, etc. When carefully administered and carefully controlled, benzene is apparently a valuable addition to the methods of treating chronic leukemia.—*J. A. M. A.*

Pathologic-Anatomic Effects of Poisonous Gases

Pojarisky studied the pathologic changes from asphyxiating gases in forty cases; in six cases after an interval of from twelve to thirty hours, in twenty after two or three days, and in fourteen cases from three to eleven days after the asphyxiation. The principal changes that occurred within twelve hours after asphyxiation were marked œdema of the lungs and partial atelectasis, and severe changes in the blood, especially in Bizzozzero's blood plates and in the walls of the vessels, the endothelium. The red corpuscles suffer but little. Owing to these changes in the blood, substances form which increased the coagulability of the blood, rendering it thick and unable to circulate. In many cases there was formation of white adherent thrombi. The blood changes and thrombi formation render the work of the heart very difficult, and the nutrition of the tissues suffers, which leads to asphyxia and death from pulmonary œdema. Miliary hæmorrhages in the brain are very frequent. After three days complications may arise, such as putrid bronchitis, partial pulmonic gangrene, pleurisy, embolism, hæmorrhagic infarcts, etc. These complications may lead to permanent disability even if there is recovery from the asphyxiating gases. —*J. A. M. A.*

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Blaud (Duncan)	3 Pills
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The Maltine Co.
Toronto

The Oculocardiac Reflex

In the *Archives of Internal Medicine* of May 15, 1915, is discussed, by Levine, this interesting theme. He concludes as follows:—

1. Ocular pressure affords a simple and safe method of obtaining reflex vagus inhibition of the heart.

2. Inhibition of the heart by the oculocardiac reflex is much more profound and more frequently obtained than by pressure over the vagus nerve.

3. The oculocardiac reflex is generally absent in tabes dorsalis, present in pneumonia, syphilis (non-tabetic), and chronic valvular disease.

4. The reflex was absent in one case of diabetes mellitus and also in one case of auricular fibrillation before digitalis treatment. It was present after digitalis was given.

5. Right ocular pressure has a slightly greater effect on the rate of the heart than left. It may stop the heart for a long period of time, relatively speaking; the P-waves are sometimes diminished in size and may become iso-electric. Occasionally the auriculoventricular interval is lengthened.

6. Left ocular pressure has a much greater effect on the conduction mechanism of the heart than right. It may lengthen auriculoventricular conduction, cause partial heart-block, and result, possibly, in automatic ventricular rhythm. On two occasions inverted P-waves were seen. The height of the R-waves is sometimes increased, at other times diminished. Ectopic ventricular beats were twice observed. The P-waves are often diminished in size, but occasionally are increased. Escaped ventricular beats were seen both during right and left ocular pressure.

7. Pain, flushing of the face, and apnea during ocular pressure, are much less pronounced in tabetics than in non-tabetics.

8. The effects on the rate and on the rhythm of the heart produced by ocular pressures are not constant, differing in different individuals and in the same individual from time to time. The duration and the degree of pressure play an important part in the degree of inhibition.—*Therapeutic Gazette.*

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Bacterial Vaccines

Sterilized suspensions of micro-organisms—of great value in the treatment of infectious disease.

BACTERIAL VACCINES, as perhaps most physicians know, are suspensions, in physiologic salt solution, of killed bacteria. Their use is based on scientific principles and is in no sense empiric.

Bacterial vaccines produce active immunity, increasing the defensive forces of the body, stimulating the production of antibodies and accomplishing results that are often unobtainable from the use of drugs.

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EXCEPTIONS.—Vaccines marked with an asterisk (*) are supplied as follows: 1-Cc. bulbs, packages of 3; 1-Cc. syringes, packages of 3; three-dose syringes, packages of 1; hospital package, 30 bulbs.

LITERATURE WITH EACH PACKAGE.

Walkerville, Ontario.

Parke, Davis & Co.

Memo for President Falconer

Nov 29. 1915

Will you please get the figures to fill in on clause 17 -

Mr Mouré is preparing for me the memo for clause 18.

I have asked Dr Clark to prepare the memo for clauses 16, 19 & 21 -

I'll prepare that for clause 24.

Z A Lash